1998-2000 STATE OF NEW MEXICO §303(d) LIST FOR ASSESSED RIVER/STREAM REACHES REQUIRING TOTAL MAXIMUM DAILY LOADS (TMDLs)

FINAL RECORD OF DECISION (ROD) FOR RIVER/STREAM LISTINGS

New Mexico Environment Department
Surface Water Quality Bureau
1190 St. Francis Drive
P.O. Box 26110
Santa Fe, New Mexico 87502

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RIO GRANDE BASIN

UPPER RIO GRANDE

1. Rio Grande from Rio Pueblo de Taos to the NM-CO border - (WBS URG1-20000, WQS 2119)

Listed for turbidity, stream bottom deposits and temperature. Only 1/37 (3%) samples collected from four stations in this reach exceeded the temperature criteria. Turbidity was 1/8(13%) at each of the four stations on this reach.

ACTION: Temperature will be upgraded to Full Support. Turbidity will be listed on the 305(b) report as Full Support, Impacts Observed. The reach will continue to be listed on the 303(d) list as Partial Support for Stream Bottom Deposits.

2. Rio Grande from Guaje Canyon to the confluence with the Rio Pueblo de Taos - (WBS URG1-10000, WQS 2111)

Listed for metals (Hg and Al), turbidity, temperature, stream bottom deposits and pH. For pH, there is an extensive data set. The cumulative ratio of 7 stations is 7/137. No single stations have ratios below full support. pH will be removed from the list. For temperature, the cumulative ratio of exceedences to samples at 12 stations is 2/100. Temperature should be removed from the list. Five stations contain information on aluminum. Three stations URG111.021035, URG111.021025, and URG110.003115 are Full Support, Impacts Observed. Turbidity is not supported at stations URG111.004407, URG111.003903, URG111.021035, URG111.021025, URG111.004410 and URG111.003115.

There is a ratio of 2/9 exceedences of mercury greater than detection in data prior to 1989 at USGS station 08276500. The greatest value was 0.2 □g/l. Twelve samples reported for total mercury at this site since 1990 have been less than detection (0.1 □g/l). NMED has collected twenty-five samples in this segment in the last 10 years. All have been reported back as less than detection (0.1 □g/l). The ROD should be modified to show the cumulative ratio of exceedences for mercury is 2/41 in the last 10 years and *0/31 within the last 5 years*.

Over the last five years the ratios for chronic aluminum at three NMED stations are 1/3, 1/3, and 1/3. Ratios for the two USGS stations are 1/14 and 0/4 for the last five years. USGS samples were collected quarterly and NMED samples were grab samples from various dates. We believe that this is adequate data to support a change in the listing.

ACTION: As per the assessment protocol, one exceedence of the chronic screening level, aluminum will be listed on the 305(b) list as Full Support, Impacts Observed. The reach will continue to be listed on the 303(d) list as Partial Support for Stream Bottom Deposits.

3. Pojoaque River from mouth on Rio Grande to Nambe Dam - (WBS URG1-10200, WQS, 2111)

Listed for turbidity, stream bottom deposits and nutrients. There is limited 5-10 year data, 0/6 samples at 2 stations from 1987 are greater than the 50 NTU standard. In the Best Professional Judgement of the Surveillance and Nonpoint staff this stream reach is not impacted by nutrients. There have been no documented cases of algal growth. There are no numeric stream standards for nutrients for this stream classification. This reach is impacted by stream bottom deposits and extreme low flow events.

ACTION: This reach will upgraded to Full Support for turbidity and nutrients. The reach will continue to be listed on the 303(d) list as Partially Supported for Stream Bottom Deposits.

4. Rio Tesuque from southern border of Tesuque Pueblo to confluence of Tesuque Creek and Little Tesuque Creek - (WBS URG1-10210, WQS 2111)

Previously listed for turbidity, temperature, dissolved oxygen and fecal coliform. There is only one sample station on this segment, URG111.003305. All data are from a 1994 survey. For turbidity, 0/9 samples exceeded the criteria. For temperature, 1/9 (11%) exceeded the criteria. For dissolved oxygen, 0/9 samples exceeded the criteria. For fecal coliform, 0/3 samples exceeded the criteria.

ACTION: Turbidity, dissolved oxygen, and fecal coliform will be upgraded to Full Support and removed as causes of non-support. The reach will be listed as Full Support, Impacts Observed on the 1998 305(b) list for temperature.

5. Tesuque Creek from the confluence of Little Tesuque Creek to the confluence of North and South Forks of Tesuque Creek- (WBS URG1-10220, WQS 2118)

This reach was not listed on the 1996 list. Station URG118.003405 is not supported, 3/9 (33%) for turbidity. Station URG118.003441 is full support.

ACTION: The reach will be listed on the 1998 303(d) list as Not Supporting for turbidity. **Rename this reach from *Tesuque Creek at its confluence with Little Tesuque Creek* to the above reach**

6. North Fork of Tesuque Creek from the confluence with the South Fork to the

headwaters - (WBS URG1-20221, WQS 2118)

Not on 1996 303(d) list. At two stations from a 1994 survey ratios for total phosphorous were 1/4 and 3/15 (20%). In this survey biological assessments were also conducted. The North Tesuque Creek site was selected as the survey reference site because of its high quality habitat and in-stream characteristics. In this case the biological assessment will override the physical/chemical data.

ACTION: The reach will be added to the 305(b) list as Full Support, Impacts Observed for total phosphorus.

7. South Fork of Tesuque Creek from confluence with the North Fork to the headwaters- (WBS URG1-10222, WQS 2118)

Listed for metals (Al) and total phosphorus. The ratio of total phosphorus samples greater than the criteria is 1/10 (10%) for 5-10 year data. 1/3 samples collected in the last five years exceeded the chronic screening criteria for dissolved aluminum. In this reach 1/3 samples collected at various times in 1994 exceeded he chronic screening level for aluminum. A biological assessment was conducted on this reach in 1994. The assessment found the station to be 100% of the reference condition.

ACTION: This reach will be listed on the 1998 305(b) list as Full Support, Impacts Observed for total phosphorous and dissolved aluminum.

8. Little Tesuque Creek from the confluence of Big Tesuque Creek to the headwaters- (WBS URG1-10230, WQS 2118)

Listed for turbidity and metals (Al and Cd). Criteria violations for turbidity are documented at all stations. The listing for Cd is not supported. 1/10 (10%) samples on the reach for dissolved cadmium was reported as greater than the chronic screening criteria. One exceedence within 5 years is permitted. This sample did not meet quality control requirements because the dissolved portion exceeded the reported total Cd concentration. Acute exceedences of aluminum were observed at stations URG118.003407, URG118.003414, and URG118.003417.

ACTION: The reach is listed on the 1998 303(d) list as Not Supported with aluminum and turbidity as causes of non-support. Cadmium will be removed as a cause of non-support for this reach.

9. Rio Frijoles from confluence with Rio Medio to Pecos Wilderness boundary (WBS URG1-10700, WQS 2112)

Previously listed for total phosphorus, reduction of riparian vegetation and streambank destabilization.
All data are from a 1988 survey. For total phosphorus, the exceedence ratio was 1/5, full support,

impacts observed.

ACTION: This reach is full support, impacts observed for total phosphorus and will be reflected in the 305(b) report. This reach will continue to be listed as Partially Supported for unknown cause on the 1998 303(d) list.

10. Rio Chupadero - a tributary to the Pojoaque River upper perennial portions to the headwaters - (WBS URG1-10240, WQS 2118)

Listed for metals (Al, Ni), turbidity, stream bottom deposits and total phosphorus. For turbidity for the last five years the ratio of exceedences is 0/5 for the ten year period the ratios are 7/27 (26%). All turbidity exceedences are from spring sampling during runoff conditions. Turbidity values are not excessive, the greatest is 30 NTU. Station Chupadero Upper has 1/4 exceedences of the acute criteria for aluminum. Other stations are full support for dissolved aluminum. In 1988 1/1 sample was greater than the chronic criteria for dissolved nickel. Additional samples for dissolved nickel at this stations (0/4) from 1991-93 were all below the criteria. The cumulative ratio of all nickel samples for the reach is 1/13 in the last ten years. Total phosphorus data is available for the ten year period. Ratios for the three stations are 1/17 and 4/19 at the upper and lower Chupadero stations respectively for 5-10 year data and 0/1 within the last five years at the same stations. An additional station within 5 years has a ratio of 1/4.

ACTION: The reach is listed as Not Supported on the 1998 303(d) list with turbidity, Al and stream bottom deposits as the cause of non-support. Nickel will be removed as a cause of non-support based on the most recent data. The reach will be listed as Full Support, Impacts Observed on the 1998 305(b) report with total phosphorus as the cause.

11. Rio en Medio from mouth on Pojoaque River to Aspen Ranch - (WBS URG1-10250, WQS 2118)

Listed for metals (Al, Cd), turbidity, and total phosphorus. Cadmium was sampled at three stations on this reach. Ratios within the last 5 years are 0/1, 0/3, and 0/3. Ratios for five-ten year data are 0/6, 1/3, and 0/4 at the same stations. Similarly for aluminum data ratios are 1/4, 2/3, and 3/5 in the 5-10 time frame and 0/3, 0/3, and 0/1 within the last five years. For turbidity data from the same stations, ratios are 3/12, 0/13 and 3/11 in the 5-10 year period and 0/4, 0/3, and 0/1 for the last 5 years. For total phosphorus, 3/16 samples exceeded the criteria at station HRG80 with two other stations having 2/15 and 0/20 ratios within 5-10 years and 0/5 and 0/1 in the last 5 years. A biological assessment was conducted on this reach in 1994. The biological assessment found this station to be Fully Supporting (84%). The HBI for this station was 2.21 which is rated as excellent for organic pollution.

ACTION: Cadmium and aluminum will be removed as causes of non-support. The reach is Full

Support, Impacts Observed for turbidity and total phosphorus. The biological data is sufficient to classify the reach as Full Support.

12. Capulin Creek from mouth on Rio Grande to headwaters (WBS URG1-10600, WQS 2118)

Previously listed for stream bottom deposits and turbidity. No associated physical/chemical data are available.

ACTION: The reach was retained on the 303(d) with stream bottom deposits and turbidity as the cause of non-support.

13. Rio Chamita from mouth on Rio Chama to New Mexico-Colorado border (WQS 2116, WBS URG2-30500)

Listed for temperature, turbidity, total phosphorus, total ammonia, chlorine, fecal coliform and stream bottom deposits. There are five stations on this reach with data within the last 12 years: URG116.020005, URG116.020015, URG116.020035, URG116.020045 and URG116.020055. Ratios for temperature at these stations are 5/13, 3/12, 2/10, 1/1, and 1/4 respectively. Ratios for turbidity are 0/5, 0/5, 0/5, 0/1, and 3/3 respectively. Ratios for total phosphorus are 14/14, 5/14, 1/11, 1/3, and 1/1. Ratios for total ammonia are 11/11, 3/11, 5/10, 0/3, and 0/1 respectively. Chlorine data is available at stations 0005, 0015 and 0035, 1/1, 1/1, and 1/1 for the 5-10 year period. Ratios are 0/1 and 0/1 for the last 5 years. The Chama WWTP has begun dechlorination prior to discharge. Fecal coliform data is also available only from these three stations. Ten year ratios are 0/2, 0/2, and 2/2 for these stations.

ACTION: Station 0005 will be listed as Not Supported with temperature as the cause. Turbidity data indicate that the fishery use is not supported at station URG116.020055 and full support at stations URG116.020005, URG116.020015, and URG116.020035. Total phosphorus data indicate the fishery use is not supported at stations URG116.020005 and URG116.020015, Full Support, Impacts Observed for station URG116.020055, and full support at station URG116.020035. Total ammonia data indicate that the fishery use is not supported at stations URG116.020005, URG116.020015 and URG116.020035, while it is full support at station URG116.020055. Fecal coliform data indicate full support of the contact recreation use at stations URG116.020005 and URG116.020015 and will be listed as Full Support, Impacts Observed at station URG116.020035 on the 1998 305(b) list. The reach will continue to be listed on the 303(d) list as Partial Support for Stream Bottom Deposits.

14. Rito de Tierra Amarilla at US Highway 84 Bridge (WQS 2116, WBS URG2-30100)

New listing based on 1988 data at station URG116.017020. The total phosphorus ratio at this station is 2/2.

ACTION: This reach is listed as Not Supported with total phosphorus as the cause of non-support.

15. Nabor Creek from mouth of Rio Chamita to Nabor Reservoir (WQS 2116, WBS URG2-30510)

Previously listed for total phosphorus and total ammonia. One station is on the reach (URG116.020040). Total phosphorus data indicate Full Support, Impacts Observed for the fishery use (1/4). Total ammonia data indicate full support for the fishery use (0/4).

ACTION: Total ammonia will be removed as a cause of non-support for this reach. Total phosphorus will be upgraded to Full Support, Impacts Observed and will be listed on the 1998 305(b) report.

16. Rio Chama from mouth of Rio Brazos to Little Willow Creek (WQS 2116, WBS URG2-30000)

Previously listed for total phosphorus, total ammonia, turbidity, chlorine and stream bottom deposits. Data ratios for total phosphorus are 0/10 from a 1988 survey. No more current data is available. Data ratios for total ammonia are 0/10 from the same survey. Data ratios for turbidity are also 0/10 from the same survey. Total residual chlorine data from 1986 was 1/1 at stations URG116.019550 and URG116.020505. There are no sources of chlorine on this segment although it would receive impacts from the Rio Chamita which did have chlorine impacts from this time period. The Chama WWTP has however begun dechlorination since this time ans no exceedences have been reported within the last 5 years.

ACTION: The total phosphorus, total ammonia and turbidity will be removed as causes of non-support for this reach. As per the assessment protocol the reach will be listed as Full Support- Impacts Observed on the 1998 305(b) list with chlorine as a cause. The reach will continue to be listed on the 303(d) list as Partial Support for Stream Bottom Deposits.

17. Rio Brazos from mouth on Rio Chama to Chavez Creek (WQS 2116, WBS URG2-30200)

Previously listed for temperature, turbidity, chlorine, nutrients and stream bottom deposits. One sampling station is on the reach (URG116.008005). Data for temperature and turbidity are 0/2.

Total residual chlorine data is 1/1 exceedences from 1986 data however there are no known sources of chlorine on this reach. A review of data related to the nutrients listing show that total phosphorus

values at this station are well below the criteria of 0.1 mg/l and nitrate levels are also low with levels reported as less than 0.04 mg/l. No specific reason for the previous listing can be found.

ACTION: Temperature, turbidity, chlorine, and nutrients will be removed as causes of non-support for this reach. Chlorine will be listed as Full Support, Impacts Observed on the 1998 305(b) list. The reach will continue to be listed on the 303(d) list as Partial Support for Stream Bottom Deposits.

18. Rio Chama from the mouth on the Rio Grande to Abiquiu Dam (WQS 2113, WBS URG2-10000)

Previously listed for turbidity, pH, dissolved oxygen, unionized ammonia, nutrients and stream bottom deposits. There is no numeric turbidity criteria for this reach. pH data is available at two stations in the 0-5 year interval ratios at these stations are 0/70 and 0/9. Data in the 5-10 year interval is available from six stations with ratios of 0/20, 0/6, 2/6, 2/6, 2/8, and 0/7. Data for dissolved oxygen from two stations within the last 5 years has a cumulative ratio of 0/79. Data from 5-10 years has a cumulative ratio of 0/50. Total ammonia data is available from one station in the last five years with a ratio of 0/9. Five stations have data for total ammonia in the 5-10 year time frame. The ratios at these stations are 0/6, 1/6, 0/7, 0/8, and 0/7. In the only station with a criteria exceedence, a three day average was calculated. This 3-day average did not exceed the chronic criteria. During the review for this reach it was noted that there had been 1/10 (10%) acute exceedence of the dissolved aluminum criteria.

ACTION: Turbidity, dissolved oxygen, and unionized ammonia have been removed as causes of non-support. This reach will be listed as Full Support, Impacts Observed for aluminum on the 1998 305(b) list. No data either to support listing or de-listing can be found for nutrients. Previously listed for turbidity, pH, dissolved oxygen, unionized ammonia, nutrients and stream bottom deposits. There is no numeric turbidity criteria for this reach therefore turbidity will be removed. pH data is available at two stations in the 0-5 year interval ratios at these stations are 0/70 and 0/9. Data in the 5-10 year interval is available from six stations with ratios of 0/20, 0/6, 2/6, 2/6, 2/8, and 0/7. This reach is Partially Supporting for pH. Data for dissolved oxygen from two stations within the last 5 years has a cumulative ratio of 0/79. Data from 5-10 years has a cumulative ratio of 0/50. This reach is fully supporting for dissolved oxygen. Total ammonia data is available from one station in the last five years with a ratio of 0/9. Five stations have data for total ammonia in the 5-10 year time frame. The ratios at these stations are 0/6, 1/6, 0/7, 0/8, and 0/7. In the only station with a criteria exceedence, a three day average was calculated. This 3-day average did not exceed the chronic criteria. This reach is Full Support for total ammonia. During the review for this reach it was found that there had been 1/10 (10%) acute exceedence of the dissolved aluminum criteria.

This reach will be listed as Full Support, Impacts Observed for aluminum on the 1998 305(b) list. No data either to support listing or de-listing can be found for

nutrients. The reach will continue to be listed on the 303(d) list as Partial Support for nutrients and pH.

19. Rio Ojo Caliente from the mouth on the Rio Chama to the confluence of the Rio Vallecitos and Rio Tusas (WQS 2113, WBS URG2-10100)

Previously listed for turbidity and stream bottom deposits. There is no numeric turbidity criteria for this warmwater fishery.

ACTION: Turbidity will be removed as a cause of non-support. The reach will continue to be listed on the 303(d) list as Partial Support for Stream Bottom Deposits.

20. Canjilon Creek from inflow to Abiquiu Reservoir to Canjilon Lakes outfall (WQS 2116, URG2-10900)

Previously listed for metals (aluminum), conductivity, turbidity, total phosphorus and stream bottom deposits. All data are from sampling at four stations in 1990. (Stations URG116.010505, 515, 520, 525, 530, and 535). Ratios for aluminum are 0/1, 0/1, 0/0, 0/2, 0/2 and 0/0. Ratios for conductivity are 3/3, 1/3, 0/2, 0/4, 0/4, 0/3 respectively. Ratios for turbidity are 2/3, 0/3, 0/2, 0/4, 0/4, and 0/3. Ratios for total phosphorus are 2/3, 0/3, 0/2, 0/4, 1/3, and 1/3.

ACTION: Aluminum will be removed as a cause of non-support for this reach. Conductivity, turbidity and total phosphorus will be retained as a cause of non-support at the two lower stations. The reach will continue to be listed on the 303(d) list as Not Supporting for Stream Bottom Deposits.

21. Rio del Oso from mouth on Rio Chama to headwaters (WBS URG2-10400, WQS 2112)

Previously listed for stream bottom deposits, turbidity, reduction of riparian vegetation and streambank destabilization. No associated physical/chemical data are available.

ACTION: The reach was retained on the 303(d) with stream bottom deposits and turbidity as the cause of non-support.

22. Abiquiu Creek from mouth on Rio Chama to headwaters (WQS 2113, WBS URG2-10700)

New listing for stream bottom deposits and nutrients. We are unable to find documentation to support these listings.

ACTION: The reach will continue to be listed on the 303(d) list as Partial Support for Stream Bottom Deposits and plant nutrients.

23. El Rito perennial reaches above El Rito (WQS 2112, WBS URG2-10600)

Previously listed for turbidity, stream bottom deposits and nutrients. Turbidity data from a 1990 survey is the only available data. Ratios for turbidity were 1/1, 1/1, and 0/1. No specific data is available for the causes stream bottom deposits and nutrients.

ACTION: Turbidity will be listed as Full Support, Impacts Observed on the 1998 305(b) list. The reach will continue to be listed on the 303(d) list as Partial Support for Stream Bottom Deposits and plant nutrients.

24. Rio Vallecitos from the confluence with the Rio Tusas to its headwaters (WQS 2112, WBS URG2-10200)

Listed for metals (copper and zinc acute, aluminum chronic), temperature, total phosphorus, turbidity and stream bottom deposits. Data is available from six stations on this reach. For copper, zinc, and aluminum 1/1 exceedence is noted at station 6029 which is identified as being immediately below a gypsum mine drain. All other stations have a cumulative ratio of 0/10 for each parameter. Temperature at the stations is 1/3 for both downstream stations and 0/10 at the upstream stations. For total phosphorus the ratios are 1/1 and 1/3 at the two stations immediately below the mine and 0/12 for all others. Turbidity is variable throughout with ratios of 0/1, 0/1, 1/1, 1/1, 1/1, and 0/1.

ACTION: Because the impacts noted were attributable to a "point" source these minimal data sets will be considered sufficient to cause Partially Supporting listing for aluminum, copper, and zinc. The reach will be listed as Full Support, Impacts Observed for temperature, total phosphorus, and turbidity on the 1998 305(b) list. The reach will continue to be listed on the 303(d) list as Partial Support for stream bottom deposits.

25. Rio Tusas from the confluence with the Rio Vallecitos to the headwaters (WQS 2113, WBS URG2-10300)

Listed for turbidity and stream bottom deposits. There is no numeric turbidity criteria for this warmwater fishery.

ACTION: Turbidity will be removed as a cause of non-support for this reach. The reach will continue to be listed on the 303(d) list as Partial Support for Stream Bottom Deposits.

26. Cañones Creek from the inflow to Abiquiu Reservoir to the headwaters (WQS 2116, WBS URG2-12000)

Listed for metals (aluminum), total phosphorus and turbidity. The ratio for aluminum data is 1/1 for acute levels of aluminum. Total phosphorus and turbidity data both have ratios of 5/5. This reach was included in a 1991 biological survey and was rated as only 36% of the reference site. The site had a degraded habitat as a result of loss of riparian habitat, irrigation return flows, and impacts from the community of Cañones.

ACTION: This reach is listed as Not Supporting designated uses with aluminum, total phosphorus, and turbidity as the cause.

27. Chihuahuenos Creek from the mouth on Cañones Creek to the headwaters (WBS URG2-12300, WQS 2116)

Previously listed for stream bottom deposits, turbidity, reduction of riparian vegetation and streambank destabilization. No associated physical/chemical data are available.

ACTION: The reach was retained on the 303(d) with stream bottom deposits and turbidity as the cause of non-support.

28. Polvadera Creek from the mouth on Cañones Creek to the headwaters (WBS URG2-12100, WQS 2116)

Previously listed for stream bottom deposits, turbidity, reduction of riparian vegetation and streambank destabilization. No associated physical/chemical data are available.

ACTION: The reach was retained on the 303(d) with stream bottom deposits and turbidity as the cause of non-support.

29. Clear Creek from mouth on Rio Gallina to headwaters (WBS URG2-20250, WQS 2116)

Previously listed for stream bottom deposits and turbidity. No associated physical/chemical data are available.

ACTION: The reach was retained on the 303(d) with stream bottom deposits and turbidity as the cause of non-support.

30. Cecilia Canyon Creek from the mouth on Rio Capulin to San Pedro Parks Wilderness (WBS URG2-20211, WQS 2116)

Previously listed for stream bottom deposits, turbidity, reduction of riparian vegetation and

streambank destabilization. No associated physical/chemical data are available.

ACTION: The reach was retained on the 303(d) with stream bottom deposits and turbidity as the cause of non-support.

31. Rio Gallina from confluence with Rio Capulin to headwaters (WQS 2116, WBS URG2-20200)

New listing for turbidity, nutrients and stream bottom deposits. Turbidity data indicate full support of the criteria with a 0/5 ratio. Total phosphorus data have a ratio of 2/5.

ACTION: Turbidity is removed as a cause of non support for this reach. Total phosphorus is added as a cause of non-support. Because it is likely that the nutrients listing is related to the total phosphorus listing, nutrients will no longer be listed as a cause of non-support. The reach will continue to be listed on the 303(d) list as Not Supporting for stream bottom deposits.

32. Rio Puerco de Chama from Poleo Creek to the headwaters (WQS 2116, WBS URG2-11100)

Listed for total ammonia, total phosphorus and stream bottom deposits. Total ammonia and total phosphorus data from one station (URG116.010040) in 1991 indicate the fishery use is full support as there were no exceedences of criteria.

ACTION: Total ammonia and total phosphorus will be removed as a cause of non-support. The reach will continue to be listed on the 303(d) list as Partial Support for stream bottom deposits.

33. Poleo Creek from the mouth on the Rio Puerco de Chama to the headwaters (WQS 2116, URG2-11210)

Listing based on one station at Forest Road 103 (URG116.010050, 1991 data). Total phosphorus and turbidity data, 4/5 and 5/5, exceed the criteria values. All other parameters are below criteria values.

ACTION: This reach will be listed as Not Supported with total phosphorus and turbidity as causes.

34. Rito Encinco from the mouth on the Rio Puerco de Chama to the headwaters (WQS 2116, WBS URG2-11110)

Listing based on 5/5 exceedences for total phosphorus and turbidity.

ACTION: This reach will be listed as Not Supported with total phosphorus and turbidity as causes.

35. Coyote Creek from the mouth on the Rio Puerco de Chama to the headwaters (WQS 2116, WBS URG2-11120)

Listing based on 5/5 exceedences for total phosphorus and turbidity. A biological assessment was conducted on Coyote Creek in 1991. The station was found to be NS (56%) as compared to the reference station.

ACTION: This reach will be listed as Not Supported with total phosphorus and turbidity as causes.

36. Rito Resumidero from the mouth on Rio Puerco de Chama to the headwaters (WQS 2116, URG2-11220)

Previously listed for total ammonia, total organic carbon and stream bottom deposits. Ammonia data from 1986 have ratios of 0/6 and 0/6. Total organic carbon data from the same event are 1/5 and 1/5.

ACTION: Total ammonia will be removed as a cause of non-support for this reach. The reach will be listed on the 1998 305(b) list as Full Support, Impacts Observed with total organic carbon as the cause. The reach will continue to be listed on the 303(d) list as Not Supporting for stream bottom deposits.

37. Rito Redondo from the mouth on the Rito Resumidero to the headwaters (WQS 2116, WBS URG2-11221)

Previously listed for total organic carbon and stream bottom deposits. Ratios for total organic carbon are 2/5 and 1/5 from a 1986 survey.

ACTION: The reach is listed as Partially Supporting with total organic carbon and stream bottom deposits as the cause of non-support.

38. Embudo Creek from mouth on the Rio Grande to the border of Picuris Pueblo - (WBS URG1-11000, WQS 2111)

Listed for metals (chronic Al), turbidity, temperature, and stream bottom deposits. There are 4

sampling stations from a 1994 survey used to assess this reach. Temperature values were: 0/17, 1/9, 0/9 and 0/9. In 5-10 year data the values were similar. There appears to be no justification for a temperature listing on this reach. Aluminum exceeded the chronic screening criteria at stations URG111.021505 (2/5) and URG111.021590 (2/3) with similar results from 5-10 year data. Turbidity exceeded the criteria in 2/9 (22%) of the samples. Embudo Creek at USGS gauge station was sampled for macroinvertebrates in 1994. This station was NS (54%) with a habitat score of 36% compared to the reference. The writeup cites severe siltation as a cause of non-support.

ACTION: Temperature will be removed as a cause of non-support for this reach. The reach will continue to be listed as Not Supported for turbidity, aluminum, and stream bottom deposits.

39. Comanche Creek from the mouth on Costilla Creek upstream to Little Costilla Creek - (WBS URG1-30500, WQS 2120)

Listed for total phosphorus, metals (Al, chronic), and stream bottom deposits. Some total phosphorus exceedences were recorded from 5-10 year data (1/16,1/4,1/12,3/12,1/10,2/10). Nonpoint source projects have been implemented in this watershed. Eight stations have been sampled within 5 years with no exceedences seen for total phosphorus. This is a total of 0/15 samples at the same stations sampled previously. Results for aluminum are similar which is expected since the source of phosphorus and aluminum in this watershed is from eroding soils. In the 5-10 year time period data ratios were 2/6, 0/3, 2/6, 2/6, 2/6, 2/7, and 2/6. In the last 5 years the data ratios are 0/2, 1/2, 1/2, 0/1, 0/2, and 0/1.

ACTION: This reach is listed as Partially Supported on the 303(d) list with total phosphorus, aluminum, and stream bottom deposits as the cause.

40. San Antonio River from mouth on Los Pinos River to headwaters (WBS URG1-50100, WQS 2120)

Previously listed for stream bottom deposits, reduction of riparian vegetation and streambank destabilization. No associated physical/chemical data are available.

ACTION: The reach was retained on the 303(d) with stream bottom deposits as the cause of non-support.

41. Costilla Creek from the NM-CO border to the irrigation diversion above Costilla - (WBS URG1-40000, WQS 2120)

Previously listed for stream bottom deposits only. The assessment review found that turbidity and

metals (Al, acute) should be added to this listing due to 3/9 (33%) of turbidity readings within 5 years being above the criteria. 1/6 values exceeded the acute aluminum criteria and 2/6 (33%) exceeded the chronic aluminum criteria.

ACTION: This reach is listed as Partially Supported on the 303(d) list with turbidity, aluminum, and stream bottom deposits as the cause.

42. Costilla Creek from Comanche Creek to Costilla Dam - (WBS URG1-30000, WBS 2120)

Previously listed for metals (Al, chronic) and turbidity. Turbidity values for 0-10 years at 3 stations were 1/17, 0/2 and 0/4. Aluminum has been recorded at acute levels at stations Costilla065 and Costilla095.

ACTION: Remove turbidity as a cause on non-support for this reach. Aluminum will continue to be listed as a cause of non-support.

43. Cordova Creek from the mouth on Costilla Creek to headwaters - (WBS URG1-30300, WQS 2120)

Previously listed for turbidity, stream bottom deposits and total phosphorus. 0/9 samples at 2 stations show exceedences of the turbidity criteria. Total phosphorus is not supporting (5/10) at station the downstream station while the upstream station is fully supporting (0/3) for total phosphorus.

ACTION: Turbidity will be removed as a cause of non-support. The reach will continue to be listed as Not Supported for total phosphorus and stream bottom deposits on the 1998 303(d) list.

44. Red River from mouth on Rio Grande to Placer Creek (WBS URG1-20400, WQS 2119)

Previously listed for metals (Al, Cd, Zn), turbidity, and stream bottom deposits. Aluminum has been sampled at numerous stations along this reach. The ratios for chronic impacts at these events are 0/6, 1/3, 1/6, 0/3, 0/3, 2/8, 0/8, 1/8, and 0/6. For cadmium (chronic) the ratios are 0/6, 0/3, 0/6, 0/3, 0/3, 0/8, 0/8, 0/8, and 0/6. There have been no acute exceedences of aluminum or cadmium within the last 10 years. However, there are continuing concerns about these metals from groundwater seeps to the Red River. The reach is not supporting for zinc, at acute levels, at two stations (HRG24, 2/6 and HRG25, 2/3) and fully supporting at all other stations.
A March 1996 report by NMED documented high concentrations of aluminum, cadmium, copper, and zinc in groundwater seeps to the Red River (Red River Groundwater Investigation, March 1996). These concentrations exceeded acute criteria and indicated that acute criteria would be exceeded in the Red River. At station URG120.028025, toxicity testing indicated chronic toxicity in a water sample collected on April 15, 1997. A biological survey was conducted in 1992 at eight stations

along the Red River. Seven of these stations are in the referenced reach. The biology at stations 2 and 3 which are above the town of Red River were Full Support (90 and 97% respectively). Station 3 which is in town but above the WWTP was found to be Full Support, Impacts Observed. Station 4 downstream from the WWTP was only Partially Supporting (66%). All stations below this point were Not Supporting. Stations 6, 7, and 8 below Molycorp were 45%, 37%, and 57% of the reference. The habitat assessments for these stations show a similar pattern. According to the survey write-up, the stream bottom habitats show a downstream pattern of decline due to channel alteration, loss of vegetation and a reduction of available stream bottom substrate due to mineral deposition. Turbidity is Full Support, Impacts Observed at all stations (2/16,1/11,2/15,1/4,1/12).

ACTION: This reach is included on the 1998 303(d) list as Not Supported with metals and stream bottom deposits as the cause of non-support. Turbidity has been dropped as a cause of non-support but will be listed on the 1998 305(b) list as Full Support, Impacts Observed.

45. Rio del Pueblo from Picuris Pueblo boundary to headwaters (WBS URG1-11200, WQS 2120)

Previously listed for turbidity, nutrients and stream bottom deposits. This station was monitored as part of a 1994 Intensive Stream Survey. The aggregated ratio of exceedences for turbidity within the last five years is 1/44 and 0/12 in the 5-10 year interval. A biological assessment was conducted on this reach in 1994. The biological assessment found one station (RP050) to be Full Support, Impacts Observed (78% of reference), while another station (RP25) was partial support (68% of reference) for the fishery use. The Hilsenhoff Biotic Index, which is a measure of organic pollution (i.e. nutrients) for both of these sites indicated that nutrient enrichment was not a problem, (2.56 for RP050 and 2.17 for RP25). The ROD will be revised to reflect this information. This reach will continue to be listed as Partially Supporting with stream bottom deposits as the cause of non-support.

ACTION: Turbidity and nutrients have been removed as a source of non-support for this reach. The reach is included as Partially Supported in the 1998 303(d) report with stream bottom deposits as the cause. **Rename this reach from *Rio Pueblo from the confluence with the Rio Santa Barbara to headwaters* to the above name**.

46. Rio Hondo from mouth on Rio Grande to Lake Fork (WBS URG1-20300, WQS 2120)

Previously listed for temperature, pH, total ammonia, and stream bottom deposits.
The cumulative ratio of temperature over the last ten years is 0/74. The cumulative ratio of pH measurements over the last ten years is 0/73. The cumulative ratio of measurements for total ammonia over the past ten years is 0/78. The stream bottom deposits listing was for runoff from the ski area parking lot. BMPs have been put into place and the biological score for the station located immediately below the parking lot in a 1992 survey was 83% of the reference score. Stream bottom deposits should be removed as a cause of nonsupport. The nutrient listing is limited to one station, HON8, which is immediately below the WWTP. The biological assessment shows a high nutrient

index at this station. There is an existing TMDL in place on this reach for nutrients.

ACTION: All previously listed parameters have been removed as causes of non-support. This reach has been removed from the 1998 303(d) list.

47. Bitter Creek from mouth on Red River to headwaters (WBS URG1-20450, WQS 2120)

Previously listed for metals (aluminum), stream bottom deposits, reduction of riparian vegetation and streambank destabilization. Aluminum data indicate an exceedence ratio of 3/3 at station URG120.028530.

ACTION: The reach will be listed for aluminum at station URG120.028530 and stream bottom deposits.

48. Pioneer Creek from mouth on Red River to headwaters (WBS URG1-20430, WQS 2120)

Previously listed for turbidity, stream bottom deposits, reduction of riparian vegetation and streambank destabilization. No associated physical/chemical data are available.

ACTION: The reach was retained on the 303(d) with stream bottom deposits and turbidity as the cause of non-support.

49. Placer Creek from mouth on Red River to headwaters (WBS URG1-20510, WQS 2120)

Previously listed for stream bottom deposits, reduction of riparian vegetation and streambank destabilization. No associated physical/chemical data are available.

ACTION: The reach was retained on the 303(d) with stream bottom deposits as the cause of non-support.

50. Cabresto Creek from mouth on Red River to headwaters (WBS URG1-20410, WQS 2120)

New listing for turbidity and stream bottom deposits. There have been no exceedences (0/5) of the turbidity criteria in the last five years.
The cumulative turbidity ratio from three stations for 10 years is 1/21.

ACTION: Turbidity will be removed as a cause of non-support. This reach is listed as Partially Supported on the 303(d) list with stream bottom deposits as the cause.

51. Rio Grande del Rancho from mouth on the Rio Pueblo de Taos to Hwy 518 (WBS URG1-20110, WQS 2120)

New listing for conductivity turbidity, and stream bottom deposits. There are no ten-year data for turbidity or conductivity. Going back to 1986 there are four data points for conductivity. There are no exceedences of the criteria. Conductivity is fully supporting. There are three data points for turbidity from 1986-87. All values are less than the criteria, the maximum value is 6.2 and the mean value is 2.3 NTU.

ACTION: Turbidity and conductivity are removed from the 1998 303(d) list as causes of non-support. This reach is listed as Partially Supported on the 303(d) list with stream bottom deposits as the cause.

52. Rio Santa Barbara from Picuris Pueblo to USFS Boundary (WBS URG1-11100, WQS 2120)

Listed for stream bottom deposits and metals (Al). At station URG120.022025 there was 1/3 exceedences of the chronic screening criteria for aluminum within the last five years.

ACTION: Aluminum has been removed as a cause of non-support for this reach but will be listed on the 1998 (305) list as Full Support, Impacts Observed. This reach is listed as Partially Supported on the 303(d) list with stream bottom deposits as the cause.

53. Rio Pueblo de Taos from the mouth on the Rio Grande to Rio Grande del Rancho (WBS URG1-20100, WQS 2119)

Previously listed for temperature, total ammonia, chlorine, and fecal coliform. Temperature is partially supporting at station URG119.023505 with a ratio of 2/10. All other stations show no exceedences of the criteria. For total ammonia, all stations are fully supporting with the exception of station URG119.23515 (5/11) which is not supporting. For fecal coliform, station URG119.023510 (1/1) is full supporting, impacts observed. Station URG119.023525 (2/2) is partially supporting for fecal coliform. Aluminum should be added as Full Support, Impacts Observed at stations URG119.023505 (1/1) and URG119.23525 (1/1) for the chronic screening criteria. Chlorine was removed because the only identified source of chlorine on the reach was the Taos WWTP. We have no ambient chlorine data. The Taos plant has gone to UV disinfection and no longer uses chlorine.

ACTION: Chlorine has been removed as a cause of non-support. The 1998 303(d) list continues to show this reach as Partially Supported with temperature, total ammonia, and fecal coliform as causes of non-support.

54. Rio Fernando de Taos from mouth on Rio Pueblo de Taos to headwaters (WBS URG1-20210, WQS 2120)

Previously listed for metals (Al), turbidity, total phosphorus, and stream bottom deposits. The Al

listing should be not supporting for the entire reach based on acute ratios of 3/7, 2/4, 2/6, 1/6, and 1/6, 2/9, and 1/6. Ratios for turbidity are 2/8, 1/8, 1/8, 1/7, 1/10, 1/9, 1/8 and 1/8. Ratios for total phosphorus are 2/10, 3/9, 2/9, 2/9, 3/12, 2/11, 2/9, and 3/10. It should be noted that all exceedences come from the same spring runoff event.

ACTION: Turbidity will be removed as a cause of non-support for this reach. The reach will be listed in the 1998 305(b) report as Full Support, Impacts Observed with turbidity as the cause. The 1998 303(d) list continues to show this reach as Partially Supported for aluminum, total phosphorus, and stream bottom deposits.

55. Ute Creek from confluence with Costilla Creek to headwaters (WBS URG1-30100, WQS 2120)

Not previously listed. Samples collected in 1987 show a 1/4 ratio of exceedences of the total phosphorus criteria.

ACTION: This stream reach will be listed as Full Support, Impacts Observed for total phosphorus on the 1998 305(b) list.

56. Rio de los Pinos from the NM-CO border to the NM-CO border (WBS Unclassified, WQS 2120)

Previously listed for metals (Al), total phosphorus, temperature and stream bottom deposits. Data on this reach are limited to single grab sample data collected at two times during 1990. The first sampling was during April and the second during August. For temperature, the ratios at four of five sampling stations (URG120.031010, URG120.031020, URG120.031030 and URG120.031040) was 1/2 with all exceedences during the summer sampling. Station URG120.031050 had no exceedences. Temperature will be classified as Full Support, Impacts Observed at the exceeding stations and full support at. URG120.031050. For total phosphorus, the results were similar but with the exceedences occurring during the spring sampling. Stations URG120.031010, URF120.031030 and URG120.031050 all had 1/2 ratios with stations URG120.031020 and URG120.031040 having 0/2 exceedences. For aluminum, only one station had an exceedence. At station URG120.031010, 1/1 samples collected exceeded the screening criteria. There were no exceedences of the acute criteria.

ACTION: This reach will be listed as Full Support, Impacts Observed on the 1998 305(b) list with aluminum, total phosphorus, and temperature as the causes. The reach continues to be listed as Partially Supporting on the 1998 303(d) list with stream bottom deposits as the cause.

57. Rio Grande River from Cochiti to Angostura (WBS MRG1-10000, WQS 2108)

This segment is on Pueblo land and therefore New Mexico water quality standards do not apply.

ACTION: DO NOT LIST

58. Santa Fe River from the Cochiti Pueblo to the Santa Fe WWTP -(WBS MRG1-10400, WQS 2110)

Listed for metals (Ag, Al, Fe and Cd), turbidity, chlorine, pH, total ammonia, radioactivity, and stream bottom deposits,. Surveys were conducted in 1994, 1995, and 1996. Most data are from the 1995 survey. For Ag, the ratio for chronic screening for grab samples at 6 monitored sites is 0/19. For Al, the ratio for chronic screens at 6 sites is 0/20. For Cd, the ratio for chronic screens at 6 sites is 0/25. Fe is listed but there is no standard for iron. This parameter was evaluated against the EPA criteria of 1.0 mg/l. There were no recent exceedences of this criteria. Data within the last 5 years has a cumulative ratio of 0/58. This data includes a USGS site which is monitored quarterly. For the 3 components that make up radioactivity only one had values greater than the criteria. The ratios for gross alpha at two sites were 1/4 and 1/3. 0/13 samples at the other sites were greater than the criteria. The listing will be modified to show an entry for gross alpha not radioactivity. For turbidity, in the 0-5 year data ratios were 0/11, 0/11, 0/18, 0/ 9, and 0/10. For total ammonia, there were 5 stations with 0-5 year data. The aggregated ratio of these stations is 5/55. 2 stations had ratios which are considered partially supported. For pH, 2 stations had ratios in the Partial to Not Supporting range. Although the chlorine data available are old, there are not more recent data to support a change in the listing. Biological assessments were conducted at four stations on this reach in 1995. Three of the four assessments were NS (36%, 36%, 36%). One station near the confluence with the Rio Grande was Full Support, Impacts Observed. The report cites changes due to hydromodification as the most probable cause of non-support.

ACTION: Silver, aluminum, cadmium, iron, and turbidity have been removed as causes of non-support for this reach. The reach continues to be included on the 1998 303(d) list with total ammonia, pH, gross alpha, chlorine, and stream bottom deposits as causes of non-support.

59. Cienega Creek from the mouth on the Santa Fe to Cienega Village (WBS MRG1-10310, WQS 2110)

Previously listed for fecal coliform and chlorine. There is one sampling station on this reach. All data are from a 1986 survey. For chlorine, the ratio of exceedences was 1/1, full support, impacts observed.
For fecal coliform, the ratio of exceedences was 1/1, full support, impacts observed. For ammonia,

chronic, the ratio of exceedences was 1/5, full support, impacts observed.

ACTION: This reach will sampled in 1998-1999 for the Santa Fe River TMDL Project and thus will remain on the 303(d) list partially supporting for fecal coliform, total ammonia and chlorine.

60. Alamo Creek from the mouth on the Santa Fe River to the headwaters (WBS MRG1-10320, WQS 2110)

Previously listed for metals (unknown). There are no data, historical or otherwise, for this reach.

ACTION: This reach will continue to be listed as partially supporting for metals (unknown) and will be sampled as part of the 1998-1999 for the Santa Fe River TMDL Project.

61. Bluewater Creek - portions on State Lands above Bluewater Reservoir and from private holdings to the headwaters (WBS MRG7-20200, WQS 2107)

Previously listed for metals (Al, Cd, Pb), temperature, turbidity, total phosphorus, and stream bottom deposits. There are five stations which provide assessment data for this reach. For aluminum, there were multiple exceedences of acute criteria at four out of five stations within five years. There were no exceedences of the acute levels for lead. There were limited exceedences of the lead chronic screening criteria. Two stations, MRG106.005010 and MRG106.005030, had exceedence ratios of 1/7 and 1/5 respectively. One exceedence of these criteria is allowable within a 5 year period. Therefore these reaches will be listed as Full Support, Impacts Observed for lead. There were no exceedences of the acute criteria or chronic screening criteria for cadmium at any of the five stations. Temperature is available for four stations. At station MRG106.005045, the exceedences ratio was 3/7 (43%) or not supporting. At stations 5040, 5035, and 5020 the ratios were 1/10, 2/20 and 2/6 respectively. Turbidity is similar. Turbidity will be listed as not supporting. Total phosphorus is partially supporting at six out of nine stations.

ACTION: Lead and cadmium will be removed as causes of non-support on the 1998 303(d) list. The reach will be listed on the 1998 305(b) list as Full Support, Impacts Observed for lead. The reach continues to be included on the 1998 303(d) list for aluminum, temperature, turbidity, total phosphorus, and stream bottom deposits.

62. Rio San Jose from Horace Springs to Grants wastewater treatment plant (WBS MRG7-20000, WQS 2107)

Listed for metals (Hg, Cd) and total phosphorus. This stream segment is listed as unclassified. The total phosphorus criterion applies only to high quality coldwater fisheries so the total phosphorus listing should be removed.
Within the last five years 0/7 samples for mercury exceeded the detection level of 0.1 □g/l. For cadmium the ratios are 0/7 within five years and 0/9 from 5-10 years.

ACTION: Total phosphorus, mercury and cadmium have been removed as causes of non-support for this reach. This reach is not included in the 1998 303(d) list.

63. Percha Creek from perennial portions above Caballo Reservoir to confluence of Middle and South Forks (WBS LRG1-10100, WQS 2103)

Previously listed for nutrients and stream bottom deposits. There are two sampling stations on this reach. There are no supporting data to justify the nutrients listing per the document titled, ***"Indices of Aquatic Community Integrity of Percha and Tierra Blanca Creeks in Perennial Segments Administered by the US Bureau of Land Management, Sierra County, New Mexico"***. E.D. Weber and R.A. Cole, Department of Fishery and Wildlife Sciences, New Mexico State University, Las Cruces, New Mexico, January 20, 1996.

ACTION: Nutrients will be removed as a cause of non-support for this reach. The reach continues to be listed as Partially Supporting on the 1998 303(d) list with stream bottom deposits as the cause.

64. Alamosa Creek, perennial portions above Monticello diversion ditch (WBS MRG11-10100, WQS 2103)

Listed for reduction of riparian vegetation and streambank destabilization.

ACTION: The reach continues to be listed as Partially Supporting on the 1998 303(d) list with stream bottom deposits as the cause.

65. Rio Paguate from inflow to Paguate Reservoir to headwaters (WBS MRG7-10100, WQS 2107)

New listing for metals (Se, Hg), stream bottom deposits and temperature. For selenium 0/16 samples were greater than the acute criteria, but 16/21 within the last ten years exceeded the chronic screening level. This reach is Not Supporting for selenium. For mercury there have been no exceedences of the acute criteria within the last ten years. The exceedences ratio for mercury in the last five years is 0/4 and 1/21 within the last ten years. This reach will be upgraded to Full Support for mercury. Temperature data are limited at several of the stations. USGS station 08349800 is the only station with data within the last ten years. This station is 2/5 within five years and 5/13 within six to ten years. This segment will be listed as Partial Support for temperature.

ACTION: Mercury was removed as a cause of non-support. The reach will be listed as partially supported with selenium, temperature and stream bottom deposits.

66. Rio Grande from USGS gage at San Marcial to the Rio Puerco (WBS MRG3-10000, WQS 2105)

Previously listed for pesticides, stream bottom deposits and total ammonia. There have been 0/18 exceedences of the total ammonia chronic screening criteria in the past ten years. This reach should be upgraded to full support for total ammonia. In 1987 there was a 1/1 hit for chlordane at station MRG105.000125. There has been no follow-up sampling at this station. This station will be listed as Full Support, Impacts Observed. Two other stations on this reach have ratios of 0/1 and 0/8 for chlordane. These stations will be listed as full support. In a January 9, 1998 letter to NMED, Jim Brooks of the U.S. Fish & Wildlife Service, New Mexico Fishery Resources Office stated that "... a total maximum daily load for siltation in the middle and lower Rio Grande in New Mexico would not improve habitat conditions for the native fish fauna".

ACTION: Stream bottom deposits and ammonia were removed as causes of non-support. The reach was upgraded to Full Support, Impacts Observed and therefore removed from the 303(d) list. It will be listed as Full Support, Impacts Observed on the 305(b) list for chlordane.

67. Rio Grande from the Rio Puerco to the southern border of Isleta Pueblo (WBS MRG3-20000, WQS 2105)

Previous listed for metals (Hg) and stream bottom deposits. There are three stations for making the assessment. In 1994, these stations had a combined ratio of 0/9 for mercury upgrading the reach to full support. In a January 9, 1998 letter to NMED, Jim Brooks of the U.S. Fish & Wildlife Service, New Mexico Fishery Resources Office stated that "... a total maximum daily load for siltation in the middle and lower Rio Grande in New Mexico would not improve habitat conditions for the native fish fauna".

ACTION: Metals (mercury) and stream bottom deposits were removed as causes of non-support, therefore the reach was removed from the 303(d) list.

68. Rio Grande from the northern boundary of Isleta Pueblo to the Jemez River (WBS MRG3-30000, WQS 2105, 2105.1)

Previously listed for metals (Al), total ammonia, chlorine, stream bottom deposits and fecal coliform. For aluminum, there are four stations for making the assessment. These stations have ratios of 2/7, 3/6, 2/8, and 2/8 for exceedences of the chronic screening criteria and no exceedences of the acute criteria. All of these data are from a 1991 SWQB survey. Additional information considered to be of greater confidence has recently been issued from the USGS 1994-1996 surveys of the Rio Grande from Isleta Pueblo to the Jemez River. In this database 0/57 Rio Grande samples were found to have dissolved aluminum levels greater than the chronic screening criteria. This reach will be listed as full support for aluminum. For total ammonia there are six stations which may be used for the assessment.

Generally, in a time frame prior to 1988, there were numerous exceedences of the chronic screening criteria for ammonia. In WQS 2105 there are two stations MRG105.005730 and 5740. At station

5730 there were 11/21 samples which exceeded the chronic screening criteria for ammonia from 1988 through 1992. From 1993 through 1997 there has been only one exceedence of the criteria (1/10). A similar pattern is seen at station 5740 where 5/20 1988-1992 samples exceeded the criteria but 0/13 within the last five years have exceeded the criteria. One four-day sampling event in 1988 documented a four-day chronic exceedence at station 5740 in 1988. There have been no four-day sampling events since then. In segment 2105.1 there are no six to ten year data. All data are from 1988 to 1992. Ratios at these stations are 3/19, 0/12, 4/16, and 2/21. Ammonia will continue to be listed as partially supporting until additional sampling information is available. For fecal coliform, in segment 2105, there have been 0/28 samples with values greater than the criteria value. In segment 2105.1, which has a more restrictive criterion, the ratios are 3/9, 1/7, 3/9, and 0/3.

ACTION: Aluminum and stream bottom deposits were removed as causes of non-support. The reach continued to be listed as partially supported with ammonia, chlorine and fecal coliform listed as causes of non-support.

69. Rito Cañon de Frijoles from mouth on Rio Grande to headwaters (WBS MRG1-20100, WQS 2118)

The segment was originally listed due to the levels of DDT in fish that led the National Park Service to issue a fishing closure. A 1996 consultant report stated that remediation of DDT contaminated soil and sediment was not warranted on the basis of ecological risk, potential human health impacts, or direct risk to cultural resources.

ACTION: Because the fishing closure is still in effect, the stream was retained on the list.

70. Rio Puerco from Rito Olguin to headwaters (WBS MRG4-20000, WQS 2107)

Previously listed for temperature and stream bottom deposits. The exceedence ratios at two stations on this reach are 4/6 and 4/5.

ACTION: The listing was not changed.

71. Rio Puerco from the mouth on the Rio Grande to Rito Olguin (WBS MRG4-10000, WQS 2105)

Previously listed for stream bottom deposits. The Rio Puerco from the mouth on the Rio Grande to Rito Olguin (Rio Grande, 2105), E, was listed for not fully supporting the use of limited warmwater fishery (LWWF) and the cause of not meeting this use was listed as stream bottom deposits. The definition of a LWWF on page 41, of the ***State of New Mexico Standards for Interstate and Intrastate Streams,*** is as follows:

> LWWF a stream reach where **intermittent** flow may severely limit the ability of the reach to sustain a natural fish population on a continuous annual basis; or a

stream where historical data indicate that water temperature may routinely exceed 32.2□C (90□F)

NMED/SWQB solicited input from New Mexico Department of Game & Fish, U.S. Fish & Wildlife Service, University of New Mexico, Department of Biology and New Mexico State University, Department of Fishery and Wildlife Sciences concerning the stream bottom deposits (siltation) issues. The following questions were asked of all of the above mentioned entities. Only the U.S. Fish & Wildlife Service responded in writing:

Question from NMED/SWQB to the U.S. Fish & Wildlife Service in a letter dated January 12, 1998:

> The questions being asked are: Does siltation, in and of itself, cause impairment to the fisheries of the lower and middle Rio Grande? Alternatively, have the native fish(es) adapted to a silty aquatic habitat, leaving other factors such as flows, nutrient loading, toxics etc., which may contribute more to the cause(s) of impairment to the fishery designated use?

Response, from Jennifer Fowler-Propst, Field Supervisor, in summation, page 5 of the letter:

> "The dilemma is that siltation is needed to provide the sandy substrate habitat required by the native fishes; and conversely, high levels of suspended sediments may be harmful to some fish and other aquatic species. There is almost no scientific information to demonstrate that concentrations of suspended sediment and amounts of siltation are harmful to New Mexico fishes; and to arbitrarily set TMDLs may not be very useful for protection of the lower and middle Rio Grande fisheries resources."

Question from NMED/SWQB to the U.S. Fish & Wildlife Service in a letter dated February 2, 1998:

> Our question, in general, is: Does siltation in-and-of itself, with all other things being equal, contribute to or directly cause impairment to the fishery use for LWWF and WWF?

Response, from Jennifer Fowler-Propst, Field Supervisor, in summation, page 2, paragraph 3, of the letter:

> "There are many intermittent streams in New Mexico including, for example, the Rio Puerco and Rio Salado. These streams are dry most of the year with the exception of high runoff events generally during the summer thunderstorms. These streams have very high suspended sediments and transport high sediment loads to the Rio Grande. The degree of siltation within intermittent streams and rivers, and its effect on limited warmwater fisheries is irrelevant, since perennial waters are required for fish survival."

ACTION: Stream bottom deposits was removed as a cause of non-support and the reach was removed from the 303(d) list.

72. Sulphur Creek above Redondo Creek to the headwaters (WBS MRG2-40100, WQS

2106)

This reach has extreme pH violations. At two stations on this reach the exceedences ratio is 2/2 and 6/6 for pH. The cause of this is unknown but is most likely from natural causes. The exceedences ratio for temperature is 1/6 which will be listed as Full Support, Impacts Observed. No other concerns were noted on this reach.

ACTION: The reach will be listed with pH as the cause of non-support.

73. Tijeras Arroyo from the mouth of Tijeras Canyon to Tijeras (WQS unclassified)

Previously listed as partially supported for metals (Cd, Hg chronic) and nutrients. In 1984, there was a sewer break at Montessa Park that flowed into lower Tijeras Arroyo and made it into the Rio Grande. There are no STORET data available, but a report from ***Potter, D.U. 1984, titled, Rio Grande Water Quality Survey (August 28-September 4, 1984) in Response to a Sewer Line Break at Tijeras Arroyo on August 25, 1984. EID/SWQ-85/2. 52 p.,*** documents the spill and actions taken to abate the pollution.

ACTION: This arroyo will be removed from the 303(d) list as fixing the sewer line solved the problem.

74. Redondo Creek from the mouth on Sulphur Creek to the headwaters (WBS MRG2-40100, WQS 2106)

Previously listed as partially supported for total phosphorus and fecal coliform. Data on this segment are very limited. Ten-year data is limited to one station (USGS 355223106371710) this station has two sampling events (1996 and 1997). For total phosphorus, this station shows 0/2 samples greater than the criteria which indicates full support. For fecal coliform, there have been only two samples collected. The exceedences ratio of 1/2 will result in a listing of Full Support, Impacts Observed for fecal coliform.

ACTION: Phosphorus was removed as a cause of non-support. As per the assessment protocol, the reach was upgraded to Full Support, Impacts Observed for fecal coliform and will be placed on the 305(b) list.

75. San Antonio Creek from the confluence with the East Fork of the Jemez River to the headwaters - (WBS MRG2-40000, WQS 2106)

Previously listed for total phosphorus, temperature, turbidity, chlorine, stream bottom deposits and

fecal coliform. There are two stations on this reach which were last sampled in 1987. For turbidity, the ratio of exceedences at the two stations was 0/11 or full support. The total phosphorus ratio at station MRG106.010010 is 2/12 (17%) or partially supported and 1/6 or Full Support, Impacts Observed at station MRG106.100001. The exceedence ratio for temperature at station MRG106.010010 was 3/12 or partially supported and 0/6 or full support at station MRG106.100001. Fecal coliform data are available at station MRG106.010010 only. Two samples were collected in 1987 both of which were well under the criteria. Fecal coliform is full support for this reach. 1/1 sample for chlorine at station MRG106.010010 was above the criteria. As per the assessment, the reach is Full Support, Impacts Observed for chlorine.

ACTION: Turbidity, chlorine and fecal coliform were removed from the list as causes of non-support. Phosphorus, temperature and stream bottom deposits were retained as causes of non-support.

76. East Fork of the Jemez River from the confluence with San Antonio Creek to the headwaters (WBS MRG2-30000, WQS 2106)

Previously listed for nutrients, chlorine, and stream bottom deposits. There are two stations on this reach which were last sampled in 1987. For nutrients, no exceedences were found and is at full support. For chlorine, station MRG106.011001 had an exceedence ratio of 1/1, full support, impacts observed.

ACTION: Nutrients will be dropped from the list while chlorine will be added to the 305(b) report as full support, impacts observed. Stream bottom deposits were retained as causes of non-support.

77. Jemez River from Rio Guadalupe to the confluence of the East Fork of the Jemez River and San Antonio Creek (WBS MRG2-20000, WQS 2105.5 and 2106)

Listed for turbidity, conductivity, plant nutrients, stream bottom deposits and chlorine. Data from four stations were used in the turbidity assessment. Station MRG105.009035 (3/6) was determined to be partially supported. All other stations were full support with 0/12 exceedences. Data for conductivity were available from only two stations. Station MRG106.009505 was partially supported with a 2/5 ratio. Station MRG106.009510 was 0/11 or full support for conductivity. Per the assessment protocol, two stations, MRG105.009035 and MRG105.009510, were 1/1 or Full Support, Impacts Observed for chlorine.

ACTION: Chlorine was removed a cause of non-support. Turbidity, conductivity, plant nutrients and stream bottom deposits were retained as causes of non-support.

78. Jemez River from the Rio Grande to the confluence with the Rio Guadalupe - (WBS MRG2-10000, WQS 2105)

Previously listed for metals (As) and fecal coliform. In the aggregated 10 year data set for arsenic at

three stations, the ratio of exceedences to samples is 0/20. Additional data from the recently completed USGS study of the middle Rio Grande also support this change to full support. For fecal coliform, the data set is limited. Ratios for three stations are 1/2, 0/3, and 0/2. Station MRG105.006050 will be listed as Full Support, Impacts Observed while stations MRG105.006010 and MRG105.007015 will be changed to full support.

ACTION: Arsenic was removed as a cause of non-support. Per the assessment protocol, the reach was removed from the 303(d) list and will be listed on the 305(b) list as Full Support, Impacts Observed for fecal coliform.

79. Rio Cebolla from the confluence with the Rio de las Vacas to Fenton Lake - (WBS MRG2-20300, WBS 2106)

Previously listed for pH, stream bottom deposits and total ammonia. The listing for pH is supported as 3/5 pH samples collected in a 1989 survey were outside the allowable range. This reach will be listed as not supported for pH. For total ammonia, 0/5 samples collected as part of the same survey exceeded the chronic criteria. This segment is fully supporting for total ammonia.

ACTION: Ammonia was removed as a cause of non-support. Stream bottom deposits and pH were retained as causes of non-support.

80. Rio Cebolla from inflow to Fenton Lake to the headwaters (WBS MGR2-20400, WQS 2106)

Previously listed for temperature, stream bottom deposits and total phosphorus. For temperature, two of three stations have an exceedences ratio of 1/5. The other station has a ratio of 0/5. These stations will be given a Full Support, Impacts Observed. For total phosphorus, the ranking is based on station ratios of 0/6, 0/5, and 1/5. Station MRG106.008045 will be given a Full Support, Impacts Observed while the others are listed as full support.

ACTION: Temperature and phosphorus were removed as causes of non-support. Stream bottom deposits were retained as a cause of non-support.

81. Rio de las Vacas from the confluence with the Rio Cebolla to the Rito de las Palomas - (WBS MRG2-20200, WQS 2106)

Previously listed for temperature, stream bottom deposits and total ammonia. For total ammonia, 0/9 samples from two stations collected in 1989 exceeded the criteria. Temperature exceedences (3/5) were reported at station MRG106.008535. This reach is not supported for temperature.
Station MRG106.008515 was full support for temperature.

ACTION: Ammonia was removed as a cause of non-support. Temperature and stream bottom deposits were retained as causes of non-support.

82. Rito Peñas Negras from the mouth on the Rio de las Vacas to the headwaters (WBS

MRG2-20230, WQS 2106)

Previously listed for temperature, turbidity and stream bottom deposits. There are no data, historical or otherwise, for this reach. Data collection will begin this Spring on this reach under existing 104(b)(3) and 319(h) grant monies.

ACTION: This reach will continue to be listed as partially supporting for temperature, turbidity and stream bottom deposits.

83. Rio Guadalupe from the mouth on the Jemez River to the confluence with the Rio de las Vacas and Rio Cebolla (WBS MRG2-20100, WQS 2106)

Previously listed for conductivity, turbidity, stream bottom deposits and fecal coliform. Two stations from a 1987 survey were used in the assessment for conductivity. Station 08323000 was 1/1 for conductivity exceedences making it Full Support, Impacts Observed. Station MRG106.007501 was 2/11 or partially supported for conductivity. Turbidity measurements are available from one station. Station MRG106.007501 is Full Support, Impacts Observed (1/6) for turbidity. Fecal coliform data are also available from one station. Station MRG106.007501 has a 1/2 ratio of exceedences. Per the assessment protocol, this reach is Full Support, Impacts Observed for fecal coliform and turbidity.

ACTION: Turbidity and fecal coliform were removed as causes of non-support. Conductivity and stream bottom deposits were retained as causes of non-support.

84. American Creek from the mouth on the Rito de las Palomas to the headwaters (WBS MRG2-20241, WQS 2106)

Previously listed for temperature, stream bottom deposits and turbidity. No associated physical/chemical data are available.

ACTION: The reach was retained on the 303(d) with temperature, stream bottom deposits and turbidity as the cause of non-support.

85. Vallecito Creek from the eastern Jemez Pueblo boundary to the Village of Ponderosa - (WBS MRG2-10200, WBS 2105.5)

Previously listed for temperature, total ammonia, pH, stream bottom deposits and fecal coliform. 2/11 (18%) of the samples from surveys conducted in 1986-1987 were above the criteria for

temperature. This listing will remain with a partially supporting status. For total ammonia 1/11 samples were above the chronic criteria value. This listing for nonsupport will be changed to Full Support, Impacts Observed. For pH, 6/11 samples were above the criteria. The not supporting listing for pH will remain. For fecal coliform, 1/1 samples exceeded the criteria. Per the assessment protocol, fecal coliform and ammonia are Full Support, Impacts Observed.

ACTION: Fecal coliform and ammonia were removed as a cause of non-support. Temperature, stream bottom deposits and pH were retained as causes of non-support.

86. San Pablo Creek from the mouth on the Rio Puerco to the headwaters (WBS MRG4-20050, WQS 2107)

Previously listed for turbidity, plant nutrients and stream bottom deposits. There is only one data point in the STORET data base for turbidity on this reach. A ratio of 1/1 will be listed as Full Support, Impacts Observed until additional information can be collected for a more complete assessment.

ACTION: Per the assessment protocol, turbidity was removed as a cause of non-support. Plant nutrients and stream bottom deposits were retained as causes of non-support.

87. Rito Leche, perennial portions (WBS MRG4-20110, WQS 2107)

Previously listed for stream bottom deposits, reduction of riparian vegetation and streambank destabilization. No associated physical/chemical data are available.

ACTION: The reach was retained on the 303(d) with stream bottom deposits as the cause of non-support.

88. Nacimiento Creek from USFS boundary to San Gregorio Reservoir (WBS MRG4-20100, WQS 2107)

Previously listed for stream bottom deposits, nutrients, reduction of riparian vegetation and streambank destabilization. No associated physical/chemical data are available.

ACTION: The reach was retained on the 303(d) with stream bottom deposits and nutrients as the cause of non-support.

89. Las Huertas Creek from Placitas to Capulin Canyon (WBS MRG1-10100, WQS 2108.5)

Previously listed for stream bottom deposits, reduction of riparian vegetation and streambank destabilization. No associated physical/chemical data are available.

ACTION: The reach was retained on the 303(d) with stream bottom deposits as the cause of non-support.

90. Rio San Jose from USGS gage at Correo to Horace Springs (WBS MRG7-10000, WQS 2107)

New listing for metals (Hg), temperature, dissolved oxygen, turbidity, total phosphorus, stream bottom deposits and pH. There are very limited data sets for this reach within ten years. Because of this, data from 1986 to present were used for the assessment. The mercury ratios at two stations are 0/2 and 0/1. The temperature ratio at station MRG107.002505 is 0/1, station 2510 is 2/6, and station 2515 is 3/10. Temperature will be assigned an assessment of partial support at stations 2505 and 2510 and not supporting at station 2515. Dissolved oxygen ratios at the three stations are 0/1 at station 2505, 1/6 at station 2510, and 1/10 at station 2515. Dissolved oxygen will be listed as full support at station 2505 and Full Support, Impacts Observed at stations 2510 and 2515. Turbidity data are available only at station 2515. Here the exceedence ratio was 0/9. Total phosphorus ratios are 0/1 at station 2505, 3/4 at station 2510, and 8/8 at station 2515. Station 2505 will be listed as full support and stations 2510 and 2515 will be listed as not supporting. For pH, the ratios are 0/1 at station 2505, 0/5 at station 2510, and 3/10 at station 2515. Stations 2505 and 2510 will be listed as full support for pH while station 2515 will be listed as not supporting.

ACTION: Mercury, dissolved oxygen and turbidity were removed as causes of non-support. Temperature, phosphorus, pH and stream bottom deposits were retained as causes of non-support.

91. Rio Moquino from mouth on Rio Paguate to headwaters (WBS MRG7-10110, WQS 2107)

New listing for temperature and stream bottom deposits. There are no ten-year temperature data. Using 1978 to 1980 data the temperature exceedences ratio is 3/10 or not supporting for temperature.

ACTION: Temperature and stream bottom deposits were retained on the list as causes of non-support.

LOWER RIO GRANDE

92. Rio Grande from the NM-TX border to Leesburg Dam (WBS LRG1-10000, WQS 2101)

Previously listed for total ammonia, chlorine, pH and stream bottom deposits. The data set for total ammonia includes data collected from 14 stations during sampling events in 1988, 1991, 1993, 1994, 1995, 1996, and 1997. Several stations show various levels of impacts in the data greater than five years old. For data collected within the last five years the aggregate ratio of exceedences to samples is 0/152. These data support removal of total ammonia as a cause of nonsupport. Chlorine data in STORET is very limited there are no stations with greater than one chlorine exceedence recorded. Additional data was collected in January, 1998. All values were below the field quantification levels of the instrument and only 1/53 exceeded the criteria. The reach should be listed as fully supported chlorine. There are eleven stations with pH data. The aggregated ratio of criteria exceedences to samples for pH is 1/138. In a January 9, 1998 letter to NMED, Jim Brooks of the U.S. Fish & Wildlife Service, New Mexico Fishery Resources Office stated that "... a total maximum daily load for siltation in the middle and lower Rio Grande in New Mexico would not improve habitat conditions for the native fish fauna".

ACTION: The reach will be listed for 1.7 miles of unknown toxicity.

93. Rio Grande from Leesburg Dam to Caballo Reservoir (WBS LRG1-20000, WQS 2101)

Previously listed for pH. There are two stations in this reach with pH data. All data are from a 1989 survey. The station designated as LRG101.000185 has an exceedence ratio of 2/5. Station LRG1.000180 has an exceedences ratio of 0/5. This reach will be listed as partially supporting for pH from station LRG101.000185 to the Caballo Reservoir dam.

ACTION: The reach was retained with pH listed as the cause of non-support.

PECOS RIVER BASIN

UPPER PECOS

94. Pecos River from inflow to Sumner Reservoir to Cañon del Oso (WBS UPR-10000, WQS 2111)

Previously listed for metals (Al), stream bottom deposits and fecal coliform. Assessments on this river reach are made using five stations. Two are USGS stations and three are NMED SWQB stations. For aluminum, there has been one exceedences of all stations within the last five years. This was an acute (1/4) exceedence at USGS station 08382650. The assessment protocols allow one exceedence within five years to be classified as full, support impacts observed. However, there have been more (2/4) exceedences of the chronic screening criteria at this station which would classify the reach as partial support for chronic exceedences of the Al screening criteria. All other stations are fully supporting for this criteria. For fecal coliform there have been 0/14 exceedences of the criteria within the last ten years. This reach is fully supporting for fecal coliform.

ACTION: Fecal coliform was removed as cause of non-support. Metals (aluminum) and stream bottom deposits were retained as causes of non-support.

95. Tecolote Creek from Blue Creek to headwaters (WBS UPR-20100, WQS 2212)

There were two Tecolote Creek listings in the 1996-1998 §303(d) List, Tecolote Creek from Blue Creek to the headwaters (5.6 miles) and Tecolote Creek from the Village of Tecolote to Blue Creek (20.8 miles). The uppermost reach was listed for turbidity, siltation, reduction of riparian vegetation and streambank destabilization. The lower reach was not included in the 1998-2000 §303(d) List. STORET data for this reach was assessed along with the lower reach (UPR212.004040, 0/4 exceedences for turbidity).

96. Tecolote Creek from Village of Tecolote to Blue Creek (WBS UPR-20100, WQS 2212)

Previously listed for temperature, conductivity, turbidity, stream bottom deposits and total phosphorus. Three stations were used to assess temperature. The cumulative ratio of exceedences at these three stations was 0/87. There was a SWQB survey conducted in 1987 which shows 3/5 temperature exceedences at station UPR212.004010. This reach should be listed as partially supporting for this station only. The remainder of the reach is full support. Intensive survey information for conductivity was collected between 1988 and 1992 at several USGS stations. At station 08379187 0/347 samples exceeded the conductivity criteria of 300 □mhos. Again at station UPR212.004010 3/5 samples exceeded the conductivity criteria. This station should be listed as partially supporting for conductivity all others are full support. Turbidity is another parameter for which there is extensive information.

At USGS station 08379187 turbidity information was collected intensively over a day approximately every two months from 1988 to 1992. During this period 22/52 samples at this station exceeded the turbidity criteria. At USGS station 08379175, similar sampling was conducted. Here only 1/28 samples exceeded the criteria. At USGS station 08389178 only 1/11 samples exceeded the criteria. During a 1987 SWQB survey turbidity at stations UPR212.004020 and 4010 were 2/5 and 4/5 respectively. Therefore, station 08379187 is not supporting for turbidity, and stations UPR212.004020 and 4010 are partially supporting for turbidity. Total phosphorus should be listed as Full Support, Impacts Observed at stations 08379187 and 08379178 and fully supporting at all other stations.

ACTION: **This action is for both reaches 86 and 87.** Phosphorus was removed from the list as a cause of non-support. Temperature, conductivity, turbidity and stream bottom deposits were retained as causes of non-support. **Combine and rename this reach Tecolote Creek from the Village of Tecolote to the headwaters 26.4 miles affected.**

97. Wright Canyon from the mouth on Tecolote Creek to Forest Road 291 (WBS UPR-20150, WQS 2212)

Previously listed for turbidity and total phosphorus. Data for turbidity comes from two USGS stations 08379185 and 08379182. Both of these stations, 8/31 and 33/107 respectively, indicate the fishery use is not supported. For total phosphorus, these stations have ratios of 1/23 and 3/22 respectively. Both stations are fully supporting for total phosphorus (1/23 and 3/22).

ACTION: Phosphorus was removed as a cause of non-support. Turbidity and stream bottom deposits were retained on the list as causes of non-support.

98. Gallinas River from the diversion for Las Vegas reservoir to headwaters (WBS UPR-10300, WQS 2212)

Previously listed for turbidity, stream bottom deposits and temperature. Turbidity information is available from three stations. Station 08380000 has an exceedences ratio of 2/11 while stations 08379940 and UPR212.002530 are 0/18 and 0/3 respectively. The listing for turbidity should be partially supported at station 08380000 and full support at the other two stations. Temperature data are available from six stations. SWQB station HP32 the exceedences ratio is 2/23 for a Full Support, Impacts Observed assessment. At station 08380500, the ratio is 3/18 or partially supported. All other stations are full support. Aluminum should be added to the listing due to acute exceedences 3/17 at station HP32 during the last 5 years. This station is not supported for acute aluminum exceedences. Station UPR212.002530 also has shown one exceedence in the past five years and should be listed as Full Support, Impacts Observed. Three stations were selected for biological assessments on the Gallinas River above the diversion in 1993. The upper most station was selected as the reference site for this survey. The next down stream site was located just above the confluence with Porvenir Creek was FS (96%).

The next down stream site at the USGS gage near the diversion was Full Support, Impacts Observed (75%). The cited cause of reduced biological community at the lower site was impacts from sediment in the river.

ACTION: Turbidity, stream bottom deposits and temperature were retained as causes of non-support. Aluminum was added as a cause of non-support.

99. Gallinas River from San Augustin to the diversion for the Las Vegas municipal reservoir (WBS UPR-10200, WQS 2213)

Previously listed for unknown toxicity, dissolved oxygen, turbidity, total ammonia, stream bottom deposits and temperature. Intensive surveys were conducted by the SWQB in 1990 and 1993. The listing for unknown toxicity is from toxicity testing conducted at stations near the WWTP in Las Vegas during the 1990 survey. Toxicity was noted in waters immediately upstream from the WWTP and in the effluent itself. This listing is valid in a distance from above the WWTP to the first station below the WWTP. Dissolved oxygen data are available from seven stations along this reach. All stations are full support for dissolved oxygen (1/60). The turbidity listing is erroneous because there is no turbidity standard for this segment. Total ammonia data show 15/15 exceedences at station UPR211.001525 which is immediately downstream from the Las Vegas WWTP. No exceedences are recorded at other stations above and below this station. This station should be listed as not supported for total ammonia. Temperature information is available from both surveys. The cumulative temperature exceedences for both surveys was 0/123. This entire reach should be upgraded to full support for temperature. An additional listing will be made for biological assessment based on information from the 1993 survey. All stations from the biological assessment were full support with the exception of station UPR211.001525 which is the station immediately downstream from the WWTP. This station was 42% of the reference condition with a nutrient enrichment index (Hilsenhoff Biotic Index) of 7.24 which places it as fairly poor with significant organic pollution present.

ACTION: Dissolved oxygen, turbidity and temperature were removed as causes of non-support. Unknown toxicity, ammonia and stream bottom deposits were retained as causes of non-support.

100. Beaver Canyon Creek from the mouth on Porvenir Creek to the headwaters (WBS PR1-10311, WQS 2214)

Previously listed as Beaver Creek for stream bottom deposits, reduction of riparian vegetation and streambank destabilization. No associated physical/chemical data are available.

ACTION: The reach was retained on the 303(d) with stream bottom deposits as the cause of non-support.

101. Porvenir Creek from the mouth on the Gallinas River to the USFS Campground (WBS UPR1-10310, WQS 2212)

Previously listed for turbidity, stream bottom deposits and temperature. Turbidity data are available from one station. Station UPR212.002520 which shows exceedences of 14/33. This reach should be listed as not supported for turbidity. The temperature data are from two stations. The cumulative ten year exceedences ratio for both stations is 0/42. Temperature will be upgraded to full support. A biological assessment was conducted on Porvenir creek in 1993. The biological assessment was found to be FS (81%). In addition to the NMED biological data the USGS conducted intensive surveys for physical/chemical and biological data which is published in "Water Quality and Benthic Macroinvertebrate Bioassessment of Gallinas Creek, San Miguel County, New Mexico, 1987-90" (Water-Resources Investigations Report 96-4011). In this survey 6 separate assessment events were conducted over a 4 year period. The procedure used was equivalent to rapid bioassessment protocol III. The Porvenir Creek results in the seasonal surveys were 90, 95, 100, 90, 95, and 100% of the reference site. The report also states, "Turbidities were 10 or more units during runoff events at all sites except site 1 (the references site, watershed size 4.6 square miles). Turbidities at site 3 (Porvenir Creek) exceeding this water-quality standard are most probably due to natural causes." Descriptions within parentheses have been added for reference. Of 18 data points, the highest turbidity reported was 25 NTU during a runoff event. The weight of evidence is in support of removal of the turbidity listing.

ACTION: The reach was removed from the 303(d) list.

102. Pecos River from Cañon del Oso to Alamitos Canyon (WBS UPR1-20000, WQS 2213)

Previously listed for stream bottom deposits, nutrients, reduction of riparian vegetation and streambank destabilization. A 1991 intensive survey found nutrients were not impairing the fishery use.

ACTION: The reach was retained on the 303(d) with stream bottom deposits as the cause of non-support.

103. Pecos River from Alamitos Canyon to Willow Creek (WBS UPR1-30000, WQS 2214)

Previously listed for turbidity and metals (Zn, Pb, and Al). Turbidity data from three stations show exceedence ratios of 1/12 at UPR214.006020, 3/18 at station CON08, and 3/19 at UPR080. This reach should have a listing of partially supported for turbidity. For chronic aluminum ratios at the three stations are 5/12, 5/10, and 4/9. This reach should be listed as not supported for chronic aluminum. For chronic lead, the ratios at four stations are 0/12, 0/2, 0/10, and 0/9 with all values reported as <5 □g/l. Lead should be removed as a cause of nonsupport for this reach. Dissolved zinc data shows several exceedences of the acute criteria. Stations UPR080 has a ratio of 5/10 and UPR214.006020 has a ratio of 2/9. Station Pecos CON08 has 0/10 with all values reported as less than detection. Stations UPR080 and UPR214.006020 should be listed as not supported for zinc.

However, there are pollution control requirements for metals in the decision document issued by NMED pursuant to an Administrative Order and Consent for the Terrero mine. The Surface Water Quality Bureau has reviewed the remediation document and believes that these requirements are stringent enough to implement all applicable water quality standards. The draft decision document was reviewed by EPA Region 6, (Superfund Division), and found to be acceptable. Because of these requirements, a TMDL for metals is not necessary.

ACTION: Metals were removed from the 303(d) list and will be placed on the 305(b) list as a cause of non-support. Turbidity was retained as a cause of non-support.

NOTE: ***Pursuant to 40 CFR 130.7(b)(1)(iii), a waterbody is not required to be listed if other pollution control requirements required by State or federal authority are stringent enough to implement the appropriate water quality standards for such waters. Pollution control requirements for the old Tererro Mine are stringent enough to implement metals criteria applicable to Willow Creek and the Pecos River downstream of Willow Creek. Standards are anticipated to be met within the next two years.***

104. Willow Creek from the confluence at the Pecos River to the headwaters (WBS UPR1-30500, WQS 2214)

Originally listed as two segments. One segment was listed as the Terrero Mine drainage and the other listing was for the stream above the mine. These listings should be combined into one listing with limitations on the affected mileage. The combined listings were metals (Cu, Zn, Cd, and Hg), conductivity, turbidity and stream bottom deposits. The turbidity listing of not supported appears to be valid for the entire reach. Exceedences ratios at three stations are 4/15, 8/12, and 5/17. The mercury listing should be upgraded to full support. The exceedence ratios for three stations are 0/10, 0/10, and 0/10. For copper, the listing is supported at station UPR214.00710 with an exceedences ratio of 8/10 for the chronic criteria. Two other stations UPR214.00716 and PECOSCON07 have exceedence ratios of 0/10. Cadmium follows the same pattern as copper. Station UPR214.00710 has 9/10 samples exceeding the acute criteria with stations UPR214.00716 and PECOSCON07 both with 0/10 ratios. Zinc has exceedence ratios of 9/10 and 3/15 (not supported) at stations UPR214.00710 and PECOSCON07 respectively. Station UPR214.007016 is full support. However, there are pollution control requirements for metals in the decision document issued by NMED pursuant to an Administrative Order and Consent for the Tererro mine. The Surface Water Quality Bureau has reviewed the remediation document and believes that these requirements are stringent enough to implement all applicable water quality standards. The draft decision document was reviewed by EPA Region 6, (Superfund Division), and found to be acceptable. Because of these requirements, a TMDL for metals is not necessary. All three stations show high ratios of exceedences for conductivity. These ratios 8/18, 14/14, and 10/12 at stations 7016, 7010, and PECOSCON07 respectively are not supported for conductivity.

ACTION: Metals were removed from the 303(d) list and will be placed on the 305(b) list as a

cause of non-support. Turbidity, conductivity and stream bottom deposits were retained as a cause of non-support.

NOTE: ***Pursuant to 40 CFR 130.7(b)(1)(iii), a waterbody is not required to be listed if other pollution control requirements required by State or federal authority are stringent enough to implement the appropriate water quality standards for such waters. Pollution control requirements for the old Tererro Mine are stringent enough to implement metals criteria applicable to Willow Creek and the Pecos River downstream of Willow Creek. Standards are anticipated to be met within the next two years.***

105. Holy Ghost Creek from mouth on the Pecos River to Doctor Creek (WBS UPR1-30400. WQS 2214)

Previously listed for metals (aluminum) and reduction of riparian vegetation. The data is from 1991 and 1992. The exceedence ratio of the 1.5 time the chronic screening criteria is 2/7. The chronic screening criteria is 130.5□g/l. The exceedences were 300□g/l and 200□g/l respecively.

ACTION: The reach was retained on the 303(d) with metals (aluminum) as the cause of non-support.

106. Cow Creek from mouth on Pecos River to headwaters (WBS PR1-20200, WQS 2214)

Previously listed for stream bottom deposits, reduction of riparian vegetation and streambank destabilization. No associated physical/chemical data are available.

ACTION: The reach was retained on the 303(d) with stream bottom deposits as the cause of non-support.

107. Rio Mora from the mouth on the Pecos River to the headwaters (WBS UPR1-30600, WQS 2214)

ACTION: Change listing description to read as above.

LOWER PECOS

108. Pecos River from Salt Creek to Sumner Dam (WBS PR3-10000, WQS 2207)

Previously listed for stream bottom deposits. A July 18, 1997 letter from U.S. Fish & Wildlife stated that siltation and sedimentation are not an issue for this reach of the Pecos River. Additional information is available in the report ***"Record of Decision Concerning the Development of Total Maximum Daily Loads for Segments 2206 and 2207 of the Pecos River".***

ACTION: The reach was removed from the 303(d) list.

109. Pecos River from Rio Peñasco to Salt Creek (WBS PR7-10000, WQS 2206)

Previously listed for metals (Hg), dissolved oxygen, total ammonia, total dissolved solids and stream bottom deposits. A review of historical data and an intensive seasonal survey conducted by NMED in April, July and November of 1997 produced no supporting data for listing this reach of the Pecos River. A July 18, 1997 letter from U.S. Fish & Wildlife stated that siltation and sedimentation are not an issue for this reach of the Pecos River. Additional information is available in the report ***"Record of Decision Concerning the Development of Total Maximum Daily Loads for Segments 2206 and 2207 of the Pecos River".***

ACTION: The reach was removed from the 303(d) list.

110. Pecos River from Black River to Lower Tansil Dam (WBS PR11-20000, WQS 2202)

Previously listed for metals (Al), salinity, stream bottom deposits and total ammonia. Salinity should be upgraded to full support as there have been no exceedences of total dissolved solids, sulfate and chloride criteria in the last ten years. All total ammonia data are from the five to ten year interval. The cumulative ratio of samples from three stations is 0/15. Total ammonia should be upgraded to full support. The cumulative ratio of samples from three stations for aluminum is 0/7 over the last ten years. Aluminum should be upgraded to full support.

ACTION: Salinity, ammonia and aluminum were removed as causes of non-support. Stream bottom deposits was retained as a cause of non-support.

111. Pecos River from the NM-TX border to Black River (WBS PR11-10000, WQS 2201)

Previously listed for temperature, metals (Al), stream bottom deposits and salinity. Extensive temperature data are available from the last two years. One station, LPR201.000505, had 1/5 exceedences which will be listed as Full Support, Impacts Observed. The cumulative ratio at all other stations was 0/154.

Salinity should be removed as a cause of nonsupport as there have been no exceedences of the criteria for total dissolved solids, sulfate and chloride. Aluminum was monitored at two stations.

Station LPR201.000505 was 1/1, or Full Support, Impacts Observed, for exceedences of the chronic screening ratio. Station 08407500 (USGS) was 1/7 within the last five years and 3/20 for the five to ten year interval. This station is also Full Support, Impacts Observed. There is one 1991 biological assessment on this reach. One station, LPR201.000505, was not supporting at 21% of the reference site. The assessment notes that it was probably due to poor substrate.

ACTION: Temperature, metals and salinity were removed as causes of non-support. Stream bottom deposits was retained and biological criteria was added to causes of non-support.

112. Rio Ruidoso from Seeping Springs Lakes to the Mescalero Apache Reservation (WBS PR8-50000, WQS 2209)

Previously listed for temperature, stream bottom deposits and turbidity. Temperature data are available from six stations along the reach. Stations LPR209.012035 and 12040 are Full Support, Impacts Observed with 1/4 ratios. Station RUD12 is partially supporting with a 2/12 (17%) ratio. Stations RUD4 and RUD2 are fully supporting with 1/12 and 0/12 ratios respectively. Station 08387000 is Full Support, Impacts Observed with a 2/17 (12%) ratio. Turbidity data are available from five stations. Two stations LPR209.012035 and 12040 were samples within five to ten years. Station LPR209.012035 is not supported with 4/4 samples exceeding the criteria. Station 12040 is Full Support with a 0/4 ratio. Stations RUD12, RUD4, and RUD2 are not supported with 5/12, 8/12, and 5/12 ratios. There are five biological assessment stations on this reach. The Rio Ruidoso at the reservation boundary was used as the reference site for this survey. The next down stream site in the town of Rio Ruidoso was PS with a 67% score. The next station was at the USGS gage near the race track. The score here was also 67% of the reference. The site immediately above the WWTP was FSIO with a 74% score. The site below the WWTP was PS at 58%. These scores reflect a general loss of habitat indicating only partial support of the aquatic life use. Both biological assessment stations on this reach were rated at 58% of the reference condition. This supports the listing as partially supported.

ACTION: Temperature, stream bottom deposits and turbidity were retained as causes of non-support.

113. Rio Ruidoso from the confluence with Rio Bonito to Seeping Springs Lakes (WBS PR8-40000, WQS 2208)

Previously listed for turbidity, stream bottom deposits, plant nutrients and temperature. Turbidity should be removed from the listing as there are no numeric criteria for turbidity in a coldwater fishery. Temperature data are available from four stations on the Rio Ruidoso. The cumulative ratio of temperature exceedences for these stations is 0/64. This reach is fully supporting for temperature. Fecal coliform with a ratio of 1/5 since 1993 will be added as Full Support, Impacts Observed.

ACTION: Turbidity and temperature were removed as a cause of non-support. Stream bottom

deposits, and plant nutrients were retained as causes of non-support. Fecal coliform will be added to the 305(b) list as Full Support, Impacts Observed.

114. Rio Bonito from confluence with Rio Ruidoso to Angus Canyon (WBS PR8-20000, WQS 2208)

Previously listed for fecal coliform and stream bottom deposits. Samples collected at two stations within five years have a cumulative ratio of 0/6 exceedences. This reach is fully supporting for fecal coliform.

ACTION: Fecal coliform was removed as a cause of non-support. Stream bottom deposits was retained as a cause of non-support.

115. Rio Peñasco, perennial portions (WBS PR10-10000, WQS 2208)

Previously listed for turbidity and stream bottom deposits. Turbidity should be removed from the listing as there are no numeric criteria for turbidity in a coldwater fishery. Five turbidity readings were collected during a 1990 survey the greatest reading was 2.0 NTU and the mean was 1.4 NTU.

ACTION: Turbidity was removed as a source of non-support. Stream bottom deposits was retained as a source of non-support.

116. Sitting Bull Creek from its mouth at Lost Chance Canyon to Sitting Bull Springs (WQS unclassified)

Not previously listed.

ACTION: The reach was listed with plant nutrients, stream bottom deposits, fecal coliform temperature and total phosphorus listed as causes of impairment.

117. Black River from mouth on the Pecos River to the headwaters - (WBS PR11-20100, WQS 2202)

Previously listed for metals (Al), reduction of riparian vegetation, streambank destabilization, unknown and salinity. There is no standard for salinity for this segment. Salinity will be removed as a cause of non-support. Two stations were sampled for aluminum. Station LPR202.001020 was 0/1 for exceedences and will be listed as full support. Station LPR202.001010 was 1/1 and will be listed as Full Support, Impacts Observed.

ACTION: The reach will remain on the 303(d) list with a cause of unknown. It will also be listed in the 305(b) report as Full Support, Impacts Observed for aluminum.

118. Rio Hondo, perennial portions up to confluence of Rio Ruidoso and Rio Bonito (WBS

PR8-10000, WQS 2208)

Previously listed for fecal coliform, reduction of riparian vegetation and streambank destabilization. Two stations have been sampled for fecal coliform with in the last five years. Each station was 0/2 for fecal coliform exceedences. This reach is in full support for fecal coliform. No associated physical/chemical data are available for the reduction of riparian vegetation and streambank destabilization listings.

ACTION: The reach will be listed with unknown as a cause on the 303(d) list.

GILA RIVER BASIN

119. Black Canyon Creek from the mouth on the East Fork Gila River to the headwaters - (WBS GRB1-20100, WQS 2503)

Previously listed for metals (Al, chronic), temperature, and total phosphorus. Limited temperature data are available but do support a listing of not supported at stations GRB503.007523 and 7525. Stations 09565, 07543, and 09563 are Full Support, Impacts Observed. For total phosphorus, 1992 data indicated Full Support, Impacts Observed (1/1 at two stations). More recent data indicated full support (0/9 at two stations). For Al, a 0/6 ratio of exceedences to samples at two sites indicates full support.

ACTION: Aluminum and phosphorus were removed as causes of non-support. Temperature was retained as a cause of non-support.

120. Taylor Creek from the confluence with Beaver Creek to Wall Lake - (WBS GRB1-20300, WQS 2503)

Previously listed for turbidity, temperature and metals (Al, chronic). For turbidity, a 0/18 ratio of exceedences to samples within the last five years supports upgrading the nonsupport listing for turbidity to full support. Temperature data over the last the years indicates non-support (6/11 and 9/15). Aluminum data also indicates non-support (2/3 and 1/3). Biological criteria at station GRB503.007550, FSIO 68% of the reference site.

ACTION: Turbidity was removed as a cause of non-support. Temperature and metals were retained as causes of non-support. Biological criteria at station GRB503.007550, FSIO 68% of the reference site will be listed in the 1998 305(b) Report.

121. Gila River from Mogollon Creek to the East and West Fork of the Gila River (WBS GRB1-10000, WQS 2502)

Additional data indicated turbidity (4/9) should be added to this reach for station GRB502.008055.

ACTION: Turbidity was added as a cause of non-support.

122. East Fork of the Gila River from the confluence with West Fork to the confluence of Beaver and Taylor Creek (WBS GRB1-20000, WQS 2503)

Previously listed for metals (Al), total ammonia, pH, total phosphorus, and total organic carbon. While aluminum exceeded the chronic screening level at station GRB503.007540 (2/3), there were no acute or chronic criteria exceedences.

For total ammonia, the entire reach should be upgraded to full support based on 0/24 exceedences from four stations over ten years. The pH listing should be limited to station GRB503.007547 with 2/9 exceedences within the last five years. All other stations are fully supporting for pH. The total phosphorus listing of not supporting is verified at station 7540 (5/9). Station 7541 is Full Support, Impacts Observed and all other stations are full support. Total organic carbon is not supported at station 7540, but is full support at station 7547. A biological assessment was conducted in 1996 by NMED. The biological assessment of two stations (GRB503.007540 and GRB 503.007547) found that the fishery use was fully supported (100% and 96% of reference).

ACTION: Ammonia was removed as a cause of non-support. Based on the biological data pH, phosphorus and total organic carbon were removed as causes of non-support. Aluminum was retained as a cause of non-support.

123. Middle Fork of the Gila River from the mouth on the West Fork of the Gila River to the USFS Ranger Station (WBS GRB1-30200, WQS 2503)

Previously listed for metals (Al), temperature, turbidity, and total phosphorus. There were no exceedences of acute or chronic criteria for aluminum though the chronic screening level was exceeded one time (1/3) at station GRB503.009560, indicating Full Support, Impacts Observed. For temperature, exceedence ratios at stations 9580 (1/6) and 9575 (0/6) support changing the listings to Full Support, Impacts Observed and full support respectively. Station 9560 has an exceedences ratio of 4/9 which would make it not supporting for temperature. Turbidity is Full Support, Impacts Observed at station 9560 and full support at stations 9575 and 9580. Total phosphorus is full support at all stations with a cumulative five year ratio of 0/27 at three stations. A biological assessment was conducted in 1996 by NMED. The biological assessment of three stations (GRB503.009580, GRB503.009575 and GRB503.009560) found full support of the fishery use (100% of reference at all sites).

ACTION: Based on the biological information the reach was removed from the 303(d) list. The reach will go to the 305(b) list as Full Support, Impacts Observed for aluminum.

124. West Fork of the Gila River from the confluence with the East Fork of the Gila River to above the Gila Cliff Dwellings (WBS GRB1-30000, WQS 2503)

Previously listed for turbidity. The turbidity listings should be downgraded to not supported based on 6/9 ratios at two stations. A biological assessment was conducted in 1996 by NMED. The assessment found full support of the fishery use (90% of reference at station GRB503.008055).

ACTION: Based on the biological data, the reach was removed from the 303(d) list.

125. Gilita Creek from the confluence with Snow Canyon Creek to Willow Creek (WBS GRB1-30260, WQS 2503)

Previously listed for metals (Al), temperature, and total phosphorus. This reach is defined by two stations GRB503.007545 and 9587. There was one exceedence the chronic screening level for aluminum at station GRB503.007545, but no exceedences of the acute or chronic criteria, indicating Full Support, Impacts Observed. The temperature listing should be changed to full support for station 7547 (0/6) and not supported at station 9587 (2/6). Total phosphorus should be upgraded to Full Support, Impacts Observed at station 7545 and full support (0/9) at station 9587. A biological assessment was conducted in 1996 by NMED. The assessment found full support of the fishery use (100% of reference at station GRB503.007545).

ACTION: Based on the biological assessment the reach was removed from the 303(d) list. The reach will be placed on the 305(b) list as Full Support, Impacts Observed for aluminum.

126. Willow Creek from the mouth on Gilita Creek to the headwaters (WBS GRB1-30261, WQS 2503)

Previously listed for plant nutrients. In 1992 NMED conducted an intensive survey of the upper Gila River watershed and found that nitrogen and phosphorus levels were low. During a 1996 survey, the creek was revisited and visually found to be free from excessive plant nutrients. Based on the professional judgement of NMED staff, plant nutrients are not impairing designated uses.

ACTION: The reach was removed from the 303(d) list.

127. Canyon Creek from the mouth on the Middle Fork of the Gila to the headwaters (WBS GRB1-30240, WQS 2503)

Previously listed for plant nutrients. The phosphorus criteria was exceeded in on sample from 1992, (1/1, station GRB503.009571), indicating Full Support, Impacts Observed. Total phosphorus will be listed in the 1998 305(b) Report as FSIO.

ACTION: Plant nutrients and unknown were retained as causes of non-support.

128. Turkey Creek from the mouth on the Gila River to the headwaters (WBS GRB1-10200, WQS 2503)

Previously listed for temperature. Data is from 1992 and 1975. The exceedence ratio was 1/1 in 1992 and 0/1 in 1975. The reach is Full Support, Impacts Observed. Turkey creek was sampled for biological assessment in 1992. It was selected as the reference site for its high quality habitat.

ACTION: The reach was removed the 303(d) list. It will be added to the 305(b) list as Full

Support, Impacts Observed for temperature.

129. Iron Creek from the mouth on the Middle Fork of the Gila River to the headwaters (WBS GRB1-30250, WQS 2503)

Previously listed for total phosphorus and temperature. Two stations, GRB503.009577 and 9578, define the assessment for this reach. For total phosphorus, these stations have exceedence ratios of 0/8 and 0/9 respectively. Total phosphorus is full supported for this reach. For temperature, the exceedence ratios are 0/6 and 0/6 within five years. This reach is full support for temperature. A 1996 biological assessment found full support of the fishery use (96% of reference at station GRB503.009577).

ACTION: The reach was removed from the 303(d) list.

130. Sapillo Creek from the mouth on the Gila River to Lake Roberts (WBS GRB1-10300, WQS 2503)

Previously listed for nuisance algae. Three stations, GRB503.006530, 006520 and 006540 define the assessment of this reach. Total phosphorus data indicated full support (0/3, and 0/9) at stations 006520 and 006540 and Full Support, Impacts Observed (1/9) at station GRB503.006530. A 1996 biological assessment found that nutrients and nuisance algae were not a problem (Hilsenhoff Biotic Index of 4.55), but also found partial support of the fishery use (65% of reference at station GRB503.006530).

ACTION: Nuisance algae were removed as causes of non-support. Biological impairment and unknown were added as causes of non-support.

131. Mogollon Creek, perennial portion above the USGS gage (WBS GRB1-10100, WQS 2503)

Previously listed for metals (Pb, Al) and stream bottom deposits. This reach is defined by USGS station 09430600. Aluminum at this station has a chronic screening level ratio of 5/14 making it not supporting for aluminum. At a hardness of 40 mg/l the chronic screening level was exceeded 2/16 with no exceedences of the acute level.

ACTION: Aluminum, lead and stream bottom deposits were retained as causes of non-support.

132. Diamond Creek from the mouth on the East Fork of the Gila River to the headwaters (GRB1-20200, WQS 2503)

Previously listed for temperature and total phosphorus. Values for both parameters are limited to one sample.
Because of this limited data set the listing will be changed to Full Support, Impacts Observed based on 1/1 ratios at the stations.

ACTION: The reach was removed from the 303(d) list and will be listed as Full Support, Impacts Observed on the 305(b) list.

133. Snow Canyon Creek from the confluence with Gilita Creek to Snow Lake (WBS GRB1-30270, WQS 2503)

Previously listed for metals (Al), temperature, dissolved oxygen, total phosphorus, stream bottom deposits and turbidity. All assessments were based on single data points. Because of the limited data available this listing will be changed to Full Support, Impacts Observed for all parameters, except stream bottom deposits.

ACTION: Aluminum, temperature, dissolved oxygen, total phosphorus and turbidity were removed as causes of non-support. Stream bottom deposits was retained as a cause of non-support.

134. Gila River from the NM-AZ border to Mangas Creek (WBS GRB2-10000, WQS 2501, 2502)

Previously listed for turbidity and stream bottom deposits. Turbidity data are from two stations both with an exceedence ratios of 2/3. This reach will be listed as not supported for turbidity.

ACTION: Turbidity and stream bottom deposits were retained as causes of non-support.

135. Gila River from Mangus Creek to Mogollon Creek (WBS GRB2-20000, WQS 2502)

Previously listed for turbidity and stream bottom deposits. There are again very limited data on this reach. There is one station which has been monitored only once in 1992. An exceedence ratio of 3/3 for turbidity will result in a listing of not supported.

ACTION: Stream bottom deposits and turbidity were retained as causes of non-support.

136. Mangas Creek from the mouth on the Gila River to Mangas Springs (GRB2-20100, WQS 2502)

Previously listed for turbidity, stream bottom deposits and plant nutrients. Limited turbidity data 1/3 will result in a change in the listing to Full Support, Impacts Observed for turbidity.

ACTION: Turbidity was removed as a cause of non-support. Stream bottom deposits and plant nutrients were retained as causes of non-support.

137. Bear Creek from the mouth on the Gila River to the headwaters (WBS GRB2-20200, WQS 2502)

Previously listed for metals (Al, Cu, and Zn). There are no dissolved metals data available for this reach.

ACTION: Aluminum, copper and zinc were retained as causes of non-support.

138. Carlisle Creek, perennial portions in New Mexico (WBS GRB2-10010, WQS 2501)

Previously listed for metals (Al, Cu, Zn, Cd). There are no metals data, historical or otherwise, to support this listing.

ACTION: Aluminum, cadmium, copper and zinc were retained as causes of non-support.

SAN FRANCISCO RIVER BASIN

139. San Francisco River from the AZ-NM Border to Whitewater Creek (WBS SFR4-10000, WQS 2601)

Previously listed as two segments (Dry Creek to Whitewater Creek and Border to Dry Creek) this reach should be combined to read as described above. Previously listed for stream bottom deposits and nutrients this reach should have an additional listing of Full Support, Impacts Observed for aluminum (chronic). This listing is because of 1/2 exceedences of the chronic toxic screening criteria for aluminum in the past 5 years. There are two (1992 and 1996) biological assessments on this reach at one station. The 1996 biological assessment showed the reach FS (81%) of the reference while the 1992 biological assessment was FSIO (72%) of the reference.

ACTION: The reach was removed from the 303(d) list.

140. San Francisco River from Whitewater Creek to Largo Canyon (WBS SFR4-20000, WQS 2601)

Previously listed for metals (Al) and stream bottom deposits. There are two sampling stations used to assess this reach. The ratio of exceedences to samples for chronic aluminum is 0/4. This reach is Fully Supporting for Aluminum. There is one 1996 biological assessment on this reach at two stations. The biological assessment showed the reach FS (90% and 84%) of the reference.

ACTION: The reach was removed from the 303(d) list.

141. Whitewater Creek from the mouth on the San Francisco River to Whitewater Campground (WBS SFR4-20100, WQS 2603)

Previously listed for metals (Al), turbidity, stream bottom deposits and fecal coliform. There is one sampling station on this reach. The data support the turbidity and metals listings. For fecal coliform, 0/4 samples collected in the past ten years exceed the designated criteria. This reach is fully supporting for fecal coliform.

ACTION: Fecal coliform was removed as a cause of non-support. Aluminum, turbidity, and stream bottom deposits were retained as causes of non-support.

142. Mineral Creek from the mouth on the San Francisco River to the headwaters (WBS SFR4-20200, WQS 2603)

Previously listed for metals (Al), temperature and turbidity. There are no data for this reach since 1975. This information is considered to be inadequate to make a listing.

The stream will be sampled during the next intensive survey and reassessed to determine the appropriate listing.

ACTION: The reach was removed from the 303(d) list.

143. South Fork of Negrito Creek from the confluence with the North Fork to the headwaters (WBS SFR4-20620, WQS 2603)

Previously listed for reduction of riparian vegetation and streambank destabilization. No associated physical/chemical data are available.

ACTION: The reach was retained on the 303(d) with unknown as the cause of non-support.

144. Silver Creek from the mouth on Mineral Creek to Little Fannie Mine (WQS 2603)

Previously listed for cyanide and aluminum. No associated physical/chemical data are available.

ACTION: The reach was retained on the 303(d) with cyanide and aluminum as the causes of non-support.

145. Negrito Creek from the mouth on the Tularosa River to South Fork Negrito Creek (WBS SFR1-20601, WQS 2603)

Previously listed for temperature and plant nutrients. There is only one sampling station on this reach. All data are from a 1990 survey. For temperature, 1/5 samples exceeded the criteria making this reach Full Support, Impacts Observed. The assessment review also found that for total phosphorus, 3/5 samples exceeded the criteria. Data for total phosphorus are partially supporting the designated use. A biological assessment was conducted at one station (SFR603.004030) in 1990. This assessment indicated Full Support, Impacts Observed (76% of reference). The Hilsenhoff Biotic Index was 4.53 indicating plant nutrients were not a problem.

ACTION: Temperature and plant nutrients were removed as causes of non-support with unknown listed as a cause of non-support.

146. Tularosa River from Apache Creek to the headwaters (WBS SFR4-20700, WQS 2603)

Listed for temperature, 4/5 (80%) samples taken during a 1990 survey exceeded standards. This reach is Partially Supporting for temperature. A biological assessment was conducted at two stations on the Tularosa River in 1990. This assessment indicated full support at station SFR603.004025 (86% of reference). Station SFR603.004050 was the reference station.

ACTION: The reach was not added due to the biological assessment showing full support of the fishery use.

147. Apache Creek at its mouth on the Tularosa River to Hardcastle Canyon (WBS SFR4-20710, WQS 2603)

Previously listed for temperature, conductivity, total phosphorus and fecal coliform. There is only one sampling station on this reach. All data are from a 1990 survey. For temperature, 5/5 (100%) of the samples exceeded the criteria. For conductivity, 5/5 (100%) of the samples exceeded the criteria. For total phosphorus 4/5 (80%) of the samples exceeded the criteria. For fecal coliform, 1/1 (100%) of the samples exceeded criteria. The criteria for temperature, conductivity, and total phosphorus are not supporting the designated use. Fecal coliform is Full Support, Impacts Observed.

ACTION: Fecal coliform was removed as a cause of non-support. Temperature, conductivity and total phosphorus were retained as causes of non-support.

148. San Francisco River from Largo Canyon to the New Mexico-Arizona border (WBS SFR4-30000, WQS 2602)

Previously listed for temperature, pH, total ammonia and plant nutrients. There are two sampling stations on this reach (SFR602.006035 and SFR602.006040). All data are from 1992 and 1995 surveys. For temperature, at station SFR602.006040, 0/9 of the samples exceeded the criteria in the 1995 survey, while 1/3 of the samples taken in 1992 exceeded the criteria. At station SFR602.005035, temperature 2/9 (22%) of the samples exceeded the criteria in the 1995 survey, while 0/3 of the samples taken in 1992 exceeded the criteria. For pH, at station SFR602.006040, 1/9 (11%) of the samples exceeded the criteria in the 1995 survey, while 1/3 of the samples taken in 1992 exceeded the criteria. At station SFR602.005035, pH 2/9 (22%) of the samples exceeded the criteria in the 1995 survey, while 0/3 of the samples taken in 1992 exceeded the criteria. For total ammonia, at station SFR602.006040, 1/9 (11%) of the samples exceeded the criteria in the 1995 survey, while 3/3 (100%) of the samples taken in 1992 exceeded the criteria. At station SFR602.005035, total ammonia 0/9 of the samples exceeded the criteria in the 1995 survey, while 0/4 (0%) of the samples taken in 1992 exceeded the criteria. For total phosphorus, at station SFR602.006040, 1/10 (10%) of the samples exceeded the criteria in the 1995 survey, while 3/3 of the samples taken in 1992 exceeded the criteria. At station SFR602.005035, total phosphorus 0/9 of the samples exceeded the criteria in the 1995 survey, while 2/4 of the samples taken in 1992 exceeded the criteria. For temperature, station SFR602.006040 is fully supporting its designated use, while station SFR602.005035 is partially supporting its designated use. For pH, station SFR602.006040 is fully supporting impacts observed, its designated use, while station SFR602.005035 is partially supporting its designated use. For total ammonia, station SFR602.006040 is fully supporting impacts observed, for its designated use, while station SFR602.005035 is fully supporting its designated use. For total phosphorus, station SFR602.006040 is fully supporting impacts observed, its designated use, while station SFR602.005035 is fully supporting its designated use. There are two biological assessments on this reach at one station (1992 and 1995) which indicate full support of the fishery use. In 1992 station 6040 was 100% of the reference while station 6035 was 81% of the reference.
(Data from 1987 collected from station 6040 was the reference). In 1996 station 6035 was 90% of

the reference (station 6040 was the reference).

ACTION: A portion of this reach, the San Francisco River from Centerfire Creek to the New Mexico Arizona border (15 miles) was retained on the 303(d) list with temperature, pH, ammonia and plant nutrients listed as causes of non-support.

149. Centerfire Creek from the mouth on the San Francisco River to the headwaters (WBS SFR4-30300, WQS 2603)

Previously listed for temperature, conductivity and plant nutrients. There is only one sample station on this reach. All data are from a 1992 survey. For temperature, 1/3 (33%) of the samples exceeded the criteria. For conductivity, 3/3 (100%) of the samples exceeded the criteria. Temperature is Full Support, Impacts Observed. Conductivity is partially supported.

ACTION: Temperature was removed as a cause of non-support an will be listed in the 1998 305(b) Report as full support, impacts observed. Conductivity and plant nutrients were retained as causes of non-support.

150. Trout Creek from the mouth on the San Francisco River to the headwaters (WBS SFR4-30400, WQS 2603)

Previously listed for total phosphorus. There is only one sample station on this reach. All data are from a 1992 survey. For total phosphorus, 1/1 (100%) of the samples exceeded the criteria. Through application of the assessment protocol total phosphorus is Full Support, Impacts Observed.

ACTION: The reach was removed from the 303(d) list and will be added to the 305(b) list as Full Support, Impacts Observed for phosphorus.

151. Mule Creek from the mouth on the San Francisco River to Mule Springs (WBS SFR4-10100, WQS 2603)

Previously listed for reduction of riparian vegetation and streambank destabilization. A 1985 NMED survey of Mule Creek found that water quality standards were met in Mule Creek.

ACTION: The reach was removed from the 303(d) list.

152. Tularosa River from the mouth on the San Francisco River to Apache Creek (WBS SFR4-20600, WQS 2603)

Previously listed for temperature, pH, fecal coliform, total ammonia, total phosphorus and turbidity. There are two sampling stations on this reach. All data are from 1990, 1992 and 1995 surveys.

For temperature, at station SFR603.004035, 1/5 of the samples exceeded the criteria in the 1990

survey this station was not resurveyed in the past 5 years. At station SFR603.004025 3/5 (60%) of the samples taken in 1990 exceeded the criteria, while 1/3 (33%) of the samples taken in 1992 exceeded criteria and 2/9 (22%) of the samples taken in 1995 exceeded the criteria. For pH, at station SFR603.004035, 0/5 (0%) of the samples exceeded the criteria in the 1990 survey. At station SFR603.004025 0/5 (0%) of the samples taken in 1990 exceeded the criteria, while 2/3 (66%) of the samples taken in the 1992 survey exceeded the criteria and 5/9 (55%) of the samples taken in 1995 exceeded the criteria. For fecal coliform, at station SFR603.004035, 1/1 (100%) of the samples exceeded the criteria in the 1990 survey. At station SFR603.004025, 0/1 (0%) of the samples taken in 1990 exceeded the criteria , while 1/1 (100%) of the samples taken in the 1992 survey exceeded the criteria and 0/3 (0%) of the samples taken in 1995 exceeded the criteria, indicating full support for the last five years. For total ammonia, at station SFR603.004035, 1/5 (20%) of the samples taken in the 1990 survey exceeded the criteria. At station SFR603.004025, 1/5 (20%) of the samples taken in the 1990 survey exceeded the criteria, while 0/3 (0%) of the samples taken in 1992 exceeded the criteria and 1/9 (11%) of the samples taken in 1995 exceeded the criteria, indicating full support in the last five years. For total phosphorus, at station SFR603.004035, 1/5 of the samples taken in the 1990 survey exceeded the criteria. At station SFR603.004025, 4/5 (80%) of the samples taken in the 1990 survey exceeded the criteria, while 1/3 (33%) of the samples taken in 1992 exceeded the criteria and 0/9 (0%) of the samples taken in 1995 exceeded the criteria, indicating full support for the last five years. For turbidity, at station SFR603.004035, 2/5 (40%) of the samples taken in the 1990 survey exceeded the criteria. At station SFR603.004025, 1/8 (12%) of the samples taken within 5-10 years exceeded the criteria, while 0/9 (0%) of the samples taken in the past 5 years exceeded the criteria. For temperature, stations SFR603.004035 and SFR603.004025 are partially supported their designated use. For pH, station SFR603.004035 is fully supporting its designated use, while station SFR603.004025 is Not Supporting its designated use. For fecal coliform, station SFR603.004035 is full supporting, impacts observed, while station SFR603.004025 is fully supporting its designated use. For total ammonia, stations SFR603.004035 and SFR603.004025 are fully support, impacts observed. For total phosphorus, station SFR603.004035 is Full Support, Impacts Observed, while station SFR603.004025 is fully supporting its designated use. For turbidity, station SFR603.004035 is partially supported, while station SFR603.004025 is fully supporting its designated use.

ACTION: Fecal coliform, ammonia and phosphorus were removed as causes of non-support. Temperature, pH and turbidity were retained as causes of non-support.

CANADIAN RIVER BASIN

153. Canadian River from the New Mexico-Texas border to Ute Dam (Canadian River, 2301, WBS CR6-10000)

Previously listed for metals (mercury), salinity, plant nutrients and stream bottom deposits. There are two sampling stations on this reach. A 1988 intensive survey by NMED found no exceedences of the mercury criteria (0/1). The survey also found that the levels of nitrogen and phosphorus were low. There were no exceedences of the TDS (salinity) criteria for USGS station 07227140 (1969-1986). As the reach is designated as a limited warmwater fishery, stream bottom deposits was proposed to be removed.

ACTION: The reach was removed from the 303(d) list.

154. Rio la Casa from the mouth on the Mora River to the confluence of North and South Forks (Canadian River, 2306, WBS CR4-30100)

Previously listed for turbidity and stream bottom deposits. There is one sampling station on this reach. All data are from 1988. Turbidity data indicated full support (0/2).

ACTION: Turbidity was removed as a cause of non-support. Stream bottom deposits was retained as a cause of non-support.

155. Hunter Creek from inflow to Throttle Reservoir to the headwaters (Canadian River, 2305, WBS CR1-10330)

Previously listed for fecal coliform. There is one sampling station on this reach. There is one data point (600/100ml) from 1989 that indicate Full Support, Impacts Observed.

ACTION: The reach was removed from the 303(d) list and will be added to the 305(b) list as Full Support, Impacts Observed.

156. Little Coyote Creek from inflow to Black Lake to headwaters (Canadian River, 2306, WBS CR4-20350)

New listing for metals (Al), turbidity and stream bottom deposits. There are four sampling stations on this reach. All data are from a 1991 survey. No dissolved aluminum data was collected. Turbidity remains for all stations with the exception of CRB306.005078. Temperature is added to the list for all but station CRB306.00507. This is a partially supporting listing. Total phosphorus is also added to the list for all stations. This is a not supporting listing.

ACTION: Aluminum was removed as a cause of non-support. Turbidity and stream bottom deposits were retained and phosphorus and temperature were added as causes of non-support.

157. Conchas River from inflow to Conchas Reservoir to the headwaters (Canadian River, 2305, WBS CR5-10000)

Previously listed for metals (Al) and stream bottom deposits. There is one sampling station on this reach. There is no dissolved aluminum data. Because it is a limited warmwater fishery, stream bottom deposits was proposed to be removed as a cause of non-support.

ACTION: The reach was removed from the 303(d) list.

158. Revuelto Creek from its mouth on the Canadian River (Canadian River, 2301, WBS CR8-10000)

Previously listed for metals, total ammonia and plant nutrients. Limited total ammonia data within the last 12 years has a ratio of 0/3. The levels of ammonia seen are approximately 20% of the criteria value. This stream is an intermittent stream according to USGS.

ACTION: This reach was removed from the 1998 303(d) list.

159. Mora River from Wolf Creek to Rio la Casa (Canadian River, 2305.3, WBS CR4-20000)

Previously listed for plant nutrients. There is only one sample station on this reach. All data are from 1988. Total phosphorus values are somewhat elevated. There is inadequate data to make a definitive determination.

ACTION: This reach will continue to be listed on the 1998 303(d) list with plant nutrients as the cause.

160. Mora River from Rio la Casa to headwaters (Canadian River, 2306, WBS CR4-30000)

Previously listed for total phosphorus, fecal coliform, turbidity, and stream bottom deposits. There are two sampling stations on this reach. All data is from a 1986 survey. Data at two stations had ratios of 5/5 and 1/5 for total phosphorus. Turbidity ratios are similar at 4/5 and 1/4. Fecal coliform ratios are 1/1 and 0/1.

ACTION: This reach will continue to be listed on the 1998 303(d) list with total phosphorus, turbidity, and stream bottom deposits as the cause above stations 0030. The reach will be listed on the 1998 305(b) lists as Full Support, Impacts Observed for fecal coliform.

161. Raton Creek from the mouth on Chicorica Creek to the headwaters (Canadian River, 2305, WBS CR1-10410)

Previously listed for metals (Cu), total ammonia and plant nutrients. There are two sampling stations on this reach. All data are from 1989, 1991, 1993, and 1995 surveys. The data ratios for dissolved copper are 0/3,03/ and 0/1 within the last 12 years. Data ratios for total ammonia within the last 12 years are 0/5,0/5, and 02. There are supporting data to justify supporting or removing the plant nutrients listing.

ACTION: Copper and total ammonia will be removed as causes of non-support for this reach. This reach will continue to be listed on the 1998 303(d) list with plant nutrients as the cause of non-support.

162. Rayado Creek from the mouth on the Cimarron River to Miami Lake diversion (Canadian River, 2305.3, WBS CR2-10100)

Previously listed for stream bottom deposits and fecal coliform. There is only one sample station on this reach. There is only one data point in the STORET database for fecal coliform. This value is less than the fecal coliform criteria for this segment.

ACTION: Fecal coliform will be removed as a cause of non-support for this reach. This reach will continue to be listed on the 1998 303(d) list with stream bottom deposits as the cause. This stream will be surveyed during the 1998 season.

163. Ponil Creek from the mouth on the Cimarron River to the confluence of North Ponil and South Ponil Creeks (Canadian River, 2306, WBS CR2-10300)

Previously listed for temperature, conductivity, turbidity, fecal coliform and total phosphorus. This segment will be evaluated in the 1998 surveys for use attainment. Data is available from three stations two NMED and one USGS. One NMED station is at the USGS station so these values will be summed. Data ratios for temperature are erratic. At the lower station ratios are 0/5 and at the two higher station the ratio is 3/16 within the last 5 years and 7/32 for data 5-10 years old. For conductivity the ratios are 5/5 at the lower station and 0/52 at the upper station. Turbidity is available from one survey which took place after a rain event. Ratios at the lower station are 5/5 and 0/5 at the higher station. Fecal coliform is 0/2 at the upper stations and 1/1 at the lower station. Total phosphorus values are similar with 0/5 exceedences at the upper stations and 5/5 at the lower station.

ACTION: This reach will continue to be listed as Not Supported on the 1998 303(d) list with temperature, conductivity, turbidity, fecal coliform, and total phosphorus the causes.

164. Mora River from the mouth on the Canadian River to Wolf Creek (Canadian River, 2305, WBS CR4-10000)

Previously listed for metals (Pb), total ammonia and fecal coliform. There is only one sample station on this reach. All data are from a 1986 survey. There are no dissolved lead data in STORET therefore there is insufficient data to modify the listing. Fecal coliform data is limited to 1/1 data (440/100 ml).

ACTION: This reach will be listed on the 1998 303(d) list with lead as the cause of non-support. The reach will be listed as Full Support, Impacts Observed on the 1998 305(b) list with fecal coliform as a cause.

165. Canadian River from inflow to Ute Reservoir to Conchas Dam (Canadian River, 2303, WBS CR6-20000)

Previously listed for metals (Hg), plant nutrients and stream bottom deposits. There are two sampling stations on this reach. Mercury data indicate full support for the fishery use as there were no exceedences of criteria in the last 10 years (0/3). The fishery use is a LWWF and accordingly the stream bottom deposits listing has been dropped. Data was reviewed to assess the plant nutrients listing and it has been determined that this listing is not supported. There are several reports on this segment of the river which do not include any indications of nutrient enrichment. Chemical parameters of nitrogen, phosphorus, and DO are within watershed norms.

ACTION: This reach has been removed from the 1998 303(d) list.

166. Coyote Creek from the mouth on the Mora River to Black Lake (Canadian River, 2306, WBS CR4-20300)

New listing for turbidity, total phosphorus, fecal coliform, total ammonia, and stream bottom deposits. There are four sampling stations on this reach. All data are from 1986, 1992 and 1993 surveys. Data ratios for turbidity are 0/6, 0/6, 0/6, and 0/1. Total phosphorus ratios are 1/6, 0/6, 1/6, and 0/1 Fecal coliform data indicate Full Support, Impacts Observed 1/1(230 /100 ml) in 1986. Total ammonia ratios are 0/4, 0/4, and 0/4.

ACTION: Turbidity and total ammonia will be removed as causes of non-support for this reach. Total phosphorus will be removed as a cause of non-support but will be listed on the 1998 305(b) list as Full Support, Impacts Observed for this parameter and fecal coliform. This reach will continue to be listed as Not Supported on the 1998 303(d) list with stream bottom deposits as the cause.

167. Manuelitas Creek from the mouth on Sapello River to the headwaters (Canadian River, 2306, WBS CR4-20210)

Listed for turbidity and stream bottom deposits. Turbidity values at two stations were 1/5 and 4/5. This data is misleading in that the sampling took place during a runoff event from a rain. For example at the lower station values were above criteria until the last day when the flows subsided and were then within the reach criteria. A biological assessment conducted by NMED in 1990 indicate full support of the fishery use. The biological assessment was 90% of the reference site. It is not the opinion of the biologist conducting this assessment that this reach is impacted by stream bottom deposits. The impacts from the turbidity exceedences are determined to be overridden by the high quality biology at this site.

ACTION: This reach has been removed from the 1998 303(d) list.

168. Sapello River from Manuelitas Creek to the headwaters (Canadian River, 2306, WBS CR4-20200)

Previously listed for stream bottom deposits. A biological assessment conducted by NMED in 1990 indicate full support of fishery use. The biological assessment was 80% of the reference site.

ACTION: This reach has been removed from the 1998 303(d) list.

169. Sapello River from Mora River to Manuelitas Creek (Canadian River, 2305.3, WBS CR4-20100)

Previously listed for turbidity. While listed for turbidity, there are no applicable numeric turbidity criteria for this marginal coldwater and warmwater fishery. A biological assessment conducted by NMED in 1990 indicate Full Support, Impacts Observed for the fishery use. The biological assessment was 70% of the reference site with references to in stream impacts from human activities.

ACTION: This reach is listed as Partially Supported on the 1998 303(d) list with unknown as the cause.

170. Manuelas Creek from Wheaton Creek to Manuelitas Canyon (Canadian River, 2306, WBS CR3-20300)

Previously listed for reduction of riparian vegetation and streambank destabilization.

ACTION: This reach will continue to be listed as Partially Supported on the 1998 303(d) list with unknown as the cause.

171. Ocate Creek from below the Village of Ocate to Wheaton Creek (Canadian River, 2305.3, 2306, WBS CR3-20200)

Previously listed for reduction of riparian vegetation and streambank destabilization.

ACTION: This reach will continue to be listed as Partially Supported on the 1998 303(d) list with unknown as the cause.

172. Canadian River from the Mora River to the Cimarron River (Canadian River, 2305, WBS CR3-20000)

Previously listed for plant nutrients and stream bottom deposits. There are two sampling stations on this reach. The fishery use is a LWWF and accordingly the stream bottom deposits listing has been dropped. Data was reviewed to assess the plant nutrients listing and it has been determined that this listing is not supported. There are several reports on this segment of the river which do not include any indications of nutrient enrichment. Chemical parameters of nitrogen, phosphorus, and DO are within watershed norms.

ACTION: This reach has been removed from the 1998 303(d) list.

173. Canadian River from the inflow to the Conchas River to the Mora River (Canadian River, 2305, WBS CR3-10000)

Previously listed for plant nutrients and stream bottom deposits. There are two sampling stations on this reach. The fishery use is a LWWF and accordingly the stream bottom deposits listing has been dropped. Data was reviewed to assess the plant nutrients listing and it has been determined that this listing is not supported. There are several reports on this segment of the river which do not include any indications of nutrient enrichment. Chemical parameters of nitrogen, phosphorus, and DO are within watershed norms.

ACTION: This reach has been removed from the 1998 303(d) list.

174. Cieneguilla Creek from the inflow to Eagle Nest Lake to the headwaters (Canadian River, 2306, WBS CR2-50000)

Previously listed for turbidity, fecal coliform, stream bottom deposits and plant nutrients. There are five sampling stations on this reach. All data are from 1992 and 1993 surveys. Turbidity ratios are 0/6,2/10,3/9,3/9, and 3/8. Fecal coliform ratios are 1/3,1/3,0/3,1/3, and 1/6. A biological assessment was performed on Cieneguilla Creek in 1993. Five biological stations were surveyed on this stream. The upper most station (CC1) was used as the reference site for this survey. Another station above the WWTP (CC3) was also FS (87%). A station located at the WWTP and near a horse corral was NS (54%). The station immediately down stream from the WWTP was FS (80%). The most down stream station (CC5) was only PS (61%).

This is attributed to the accumulation of impacts from the upper watershed.

ACTION: Fecal coliform will be listed on the 1998 305(b) report as Full Support, Impacts Observed. The reach will continue to be listed on the 303(d) list as Not Supported for turbidity, stream bottom deposits, and plant nutrients.

175. Six-Mile Creek from the inflow to Eagle Nest Lake to the headwaters (Canadian River, 2306, WBS CR2-40000)

Previously listed for fecal coliform and plant nutrients. There is one sampling station on this reach. All data are from 1992 and 1993 surveys. Fecal coliform data indicate Full Support, Impacts Observed for the contact recreation use (1/3). A biological assessment conducted by NMED in 1990 indicate full support of the fishery use. The biological assessment was 83% of the reference site. There are no indications of plant nutrient enrichment on this reach.

ACTION: The reach will be included on the 305(b) list as Full Support, Impacts Observed for fecal coliform. The reach has been removed from the 1998 303(d) list.

176. Moreno Creek from the inflow to Eagle Nest Lake to the headwaters (Canadian River, 2306, WBS CR2-30000)

Previously listed for fecal coliform and plant nutrients. There is one sampling station on this reach. All data are from 1992 and 1993 surveys. There are supporting data for fecal coliform with a ratio of 2/3. A biological assessment was conducted on Moreno Creek in 1993. The assessment of one station on Moreno Creek was Full Support, Impacts Observed (70%). The degradation at his site was attributed to poor habitat (58%).

ACTION: This reach is on the 1998 303(d) list as Partially Supported for fecal coliform and plant nutrients.

177. Ute Creek at its mouth on the Cimarron River (Canadian River, 2306, WBS CR2-20100)

Previously listed for turbidity, total phosphorus and total organic carbon. There is one sampling station on this reach. All data are from a 1989 survey. Turbidity ratios are 2/5. Total phosphorus ratios are 2/5. And Total organic carbon ratios are 1/1.

ACTION: Total organic carbon will be removed as a cause of non-support on the 1998 303(d) list and will be listed on the 1998 305(b) list as Full Support, Impacts Observed. This reach will continue to be listed on the 303(d) list as Partially Supporting for turbidity and total phosphorus.

178. Cimarron River from Turkey Creek to Eagle Nest Dam (Canadian River, 2306, WBS CR2-20000)

Previously listed for total phosphorus. This listing is supported at station 11550 with ratios of 4/15 within 10 years. The ratio at station 11505 are 1/16.

ACTION: This reach is included in the 1998 303(d) list as Not Supported for total phosphorus at the upper station only.

179. Middle Ponil Creek from the confluence with South Ponil Creek to the headwaters (Canadian River, 2306, WBS CR2-10610)

Previously listed for total phosphorus and stream bottom deposits. There are two sampling stations on this reach. All data is from a 1989 survey. There are supporting data for a total phosphorus listing at station CRB306.011065 (3/5) but not for station CRB306.011050 (0/5).

ACTION: This reach is included in the 1998 303(d) list as Not Supported for total phosphorus at the upper station only.

180. North Ponil Creek from the confluence with South Ponil Creek to the mouth of M^{c}Crystal Creek (Canadian River, 2306, WBS CR2-10400)

Previously listed for temperature, fecal coliform and stream bottom deposits. There are two sampling stations on this reach. All data are from a 1989 survey. Temperature data are not supporting for station CRB306.011045 (4/5) and Full Support, Impacts Observed for station CRB306.011060 (1/5). Fecal coliform data are 0/1 and 1/1. Total phosphorus was 0/6 at the lower station and 1/6 at the upper station.

ACTION: This reach will be listed on the 1998 305(b) report as Full Support, Impacts Observed for fecal coliform, temperature, and total phosphorus at the upper station. The reach is listed as Not Supported on the 1998 303(d) list with temperature and stream bottom deposits as the cause.

181. Cimarron River from the mouth on the Canadian River to Turkey Creek (Canadian River, 2305, WBS CR2-10000)

Previously listed for turbidity, plant nutrients and stream bottom deposits. There are three sampling stations on this reach. All data is from a 1988 and 1989 surveys. There is no turbidity standard for a LWWF. There are supporting data to justify the plant nutrients listing but not the stream bottom deposits listing.

ACTION: Stream bottom deposits will be removed as a cause of non-support for this reach. This reach will continue to be included on the 1998 303(d) list with plant nutrients as a cause.

182. Una de Gato Creek from the mouth on Chicorica Creek to Throttle Dam (Canadian River, 2305, WBS CR1-10320)

Previously listed for fecal coliform and stream bottom deposits. There are three sampling stations on this reach. All data are from a 1989 survey. Fecal coliform ratios are 1/1, 0/1, and 0/2. There are no data to support the listing of stream bottom deposits on this LWWF.

ACTION: Fecal coliform and stream bottom deposits will be removed as causes of non-support on the 303(d) list. The reach has therefore been dropped from the 1998 303(d) list. The reach will be listed as Full Support, Impacts Observed for fecal coliform at one station.

183. Chicorica Creek from the mouth on the Canadian River to Raton Creek (Canadian River, 2305, WBS CR1-10300)

Previously listed for, fecal coliform, plant nutrients, and stream bottom deposits. There is one sampling station on this reach. All data are from 1989 and 1993 surveys. There is supporting data for the fecal coliform listing (1/1) as Full Support, Impacts Observed and also for the plant nutrients listing. There are no data to support the listing of stream bottom deposits.

ACTION: The reach continue to be listed on the 1998 303(d) list as Partially Supporting for plant nutrients. The reach will be included in the 1998 305(b) report as Full Support, Impacts Observed for fecal coliform.

184. Vermejo River from Rail Canyon to York Canyon (Canadian River, 2306, WBS CR1-10200)

Previously listed for stream bottom deposits. There are two sampling stations on this reach. All data are from a 1989 survey. There are supporting data for adding total phosphorus at station CRB306.014020 as Full Support, Impacts Observed.

ACTION: The reach continue to be listed on the 1998 303(d) list as Partially Supporting for stream bottom deposits.

185. Vermejo River from the mouth on the Canadian River to Rail Canyon (Canadian River, 2305, WBS CR1-10100)

Previously listed for metals (Se). There are four sampling stations on this reach. All data are from a 1988, 1989 and 1993 surveys. Selenium data indicate full support (0/2).

ACTION: This reach has been removed from the 1998 303(d) list.

186. Canadian River from Cimarron River to the New Mexico-Colorado border (Canadian River, 2305, WBS CR1-10000)

Previously listed for stream bottom deposits and fecal coliform. There are five sampling stations on this reach. All data are from 1988 and 1993 surveys. Fecal coliform data indicate full support at station CRB306.019020 (0/1), and Full Support, Impacts Observed at station CRB306.019010 (1/3). There are no data to support the listing of stream bottom deposits for this LWWF.

ACTION: This reach will be listed as Full Support, Impacts Observed on the 1998 305(b) list with fecal coliform as the cause. The reach has been dropped from the 1998 303(d) list.

SAN JUAN RIVER BASIN

187. San Juan River from the Animas River to Cañon Largo (WQS 2401, WBS SJR1-10000)

Previously listed for metals (Hg), stream bottom deposits, salinity, and fecal coliform. Mercury data indicated full support of the fishery use as there were no exceedences of criteria (0/8) within the last 23 years. While there are no salinity (total dissolved solids) criteria for the reach, there were no exceedences of the total dissolved solids criteria for the Colorado River at Hoover Dam (723 mg/l). Fecal coliform data indicated that the contact recreation use was not supported at two stations (SJR 106 and SJR401.004020). Station SJR401.004010 indicated Full Support, Impacts Observed (1/2).

ACTION: Mercury and salinity will be removed as a cause of non-support for this reach. The reach will continue to be listed as Not Supported with stream bottom deposits and fecal coliform (SJR106 and 4020).

188. San Juan River from Cañon Largo to Navajo Dam (WQS 2405, WBS SJR1-20000)

Previously listed for metals (Hg, Se), turbidity, and stream bottom deposits. Mercury (0/15) and selenium (0/6) data indicated full support of the fishery use as there were no exceedences of criteria within 14 years. Turbidity data indicated the fishery use was not supported at station SJR104 (3/12), while there was Full Support, Impacts Observed for stations SJR405.005015 (1/8), SJR405.005035 (1/8) and SJR405.005045 (1/8).

ACTION: Mercury and selenium will be removed as sources of non-support for this reach. The reach continues to be listed as Not Supported for turbidity (1 sta.) and stream bottom deposits. The reach will be listed as Full Support, Impacts Observed for turbidity at two stations.

189. Animas River from the mouth on the San Juan River to Estes Arroyo (WQS 2403, WBS SJR4-10000)

Previously listed for metals (Hg, Se) and stream bottom deposits. Mercury (0/15) and selenium (0/8) data indicated full support of the fishery use as there were no exceedences of criteria.

ACTION: Mercury and selenium will be removed as sources of non-support for this reach. The reach continues to be listed as Partially Supported for stream bottom deposits.

190. Animas River from Estes Arroyo to the New Mexico-Colorado border (WQS 2404,

WBS SJR4-20000)

Previously listed for stream bottom deposits and plant nutrients. Total phosphorus data from two stations, SJR404.00345 and SJR404.003001 indicate full support of the fishery use (0/10). There is no additional data to substantiate the listing for plant nutrients.

ACTION: Plant nutrients have been removed as a cause of non-support for this reach. The reach continues to be listed as Partially Supported for stream bottom deposits.

191. San Juan River from the New Mexico-Colorado border to the Chaco River (WQS 2401, WBS SJR5-10000)

This reach is entirely within the borders of the navajo reservation.

ACTION: It has been dropped from the 1998 303 (d) list.

192. San Juan River from the Chaco River to Animas River (WQS 2401, WBS SJR5-20000)

Previously listed for metals (Hg, Se), salinity and stream bottom deposits. Mercury (0/9) and selenium (0/13, within 22 years) data indicated full support of the fishery use as there were no exceedences of criteria. While there are no salinity (total dissolved solids) criteria for the reach, there were no exceedences of the total dissolved solids criteria for the Colorado River at Hoover Dam (723 mg/l).

ACTION: Mercury, selenium, and salinity will be removed as causes of non-support for this reach. The reach continues to be listed as Partially Supported for stream bottom deposits.

193. La Plata River from the mouth on the San Juan River to the New Mexico-Colorado border (WQS 2402, WBS SJR5-20100)

Previously listed for metals (Hg, Se), salinity, plant nutrients and stream bottom deposits. Mercury (0/1) and selenium (0/6) data indicated full support of the fishery use as there were no exceedences of criteria. There have been some old data reports, from 1981 and earlier, of mercury above detection levels. This data is highly questionable. There are no applicable salinity or total dissolved solids criteria for this reach. There are no data to support the listing of stream bottom deposits. This is a flow limited river reach.

ACTION: Mercury, selenium, and salinity will be removed as causes of non-support for this reach. The reach continues to be listed as Partially Supported for plant nutrients.

194. Chaco River from the mouth on San Juan River to Chinle Wash (WQS 2401, WBS

SJR6-10000)

This reach is located entirely within the Navajo reservation boundaries.

ACTION: It has been removed from the state 303(d) list.

LOWER COLORADO RIVER (UNCLASSIFIED)

195. Zuni River, perennial portions above Black Rock Reservoir (Lower Colorado River, unclassified, WBS LCR4-10000)

This reach is located entirely within the Zuni reservation boundaries.

ACTION: It has been removed from the state 303(d) list.

196. Rio Nutria from mouth on Zuni River to headwaters (Lower Colorado River, unclassified, WBS LCR4-20000)

Listed for mercury (Hg). There are no supporting data for this listing.

ACTION: This reach will remain on the list as Partially Supporting its use until this metals listing can be varified.

DRY CIMARRON RIVER BASIN

197. Dry Cimarron River, perennial portions (WQS 2701, WBS DC1-1000)

Previously listed for temperature, pH, salinity (TDS), fecal coliform, total ammonia and stream bottom deposits. Temperature data indicated the fishery use was not supported at 3 of 4 stations (5/5, 4/4, and 5/5) while it was supported at only one station (0/5). Data for pH are similar and indicate full support (0/5) for the fishery use at one station (same station as temperature), while the use was not supported at the other stations (4/5, 2/5, 5/5). Total dissolved solids (salinity) data indicated that the fishery use was not supported at 2 stations (DCR701.000102, 5/5 and DCR701.000105, 5/5), while it was supported at 2 stations (0/5 and 0/5). Fecal coliform data indicated full support of the contact recreation use at two stations (DCR701.000105, 0/1 and DCR701.002010, 0/1) and Full Support, Impacts Observed at station DCR701.000102 (1/1). Total ammonia data indicated that the fishery use was partially supported at 3 stations (2/5,2/5, and 2/4), while it was full support at station DCR701.002010, 0/5. A biological assessment was conducted in 1990 by the NMED. The biological assessment found that the fishery use for station DCR701.002010 was not supported (40% of reference). Station DCR701.000110 was full support (90% of reference) and station DCR701.000102 was Full Support, Impacts Observed (75% of reference) for the fishery use.

ACTION: Fecal coliform will be removed as a cause of non-support for this reach but will be listed on the 1998 305(b) list as Full Support, Impacts Observed. The reach will continue to be included on the 1998 303(d) list as not Supported for stations below DCR701.0002010 with temperature, TDS, pH, total ammonia and stream bottom deposits as the causes of non-support.

198. Long Canyon, perennial portions (WQS 2701, WBS DC1-10100)

Previously listed for temperature and total ammonia. Data are from one station (DCR701.000505) sampled in 1990. Temperature data indicated that the fishery use was not supported (2/4). Total ammonia data indicated that the use was supported (0/5).

ACTION: Total ammonia will be removed as a cause of non-support for this reach. The reach will continue to be listed on the 1998 303(d) list with temperature as the cause of non-support.

199. Carrizozo Creek from the mouth on the Dry Cimarron River to the headwaters (WQS 2701, WBS DC1-30000)

Listed for chloride and removal of riparian habitat. Data are from one station (DCR701.000103) sampled in 1986.

Chloride data indicate Full Support, Impacts Observed for the fishery use (1/3).

ACTION: Chloride will be removed as a cause of non-support for this reach and will be listed on the 1998 305(b) report as Full Support, Impacts Observed for chloride. The reach will continue to be listed on the 1998 303(d) report with unknown as the cause of non-support.

200. Oak Creek from Dry Cimarron River to the headwaters (WQS 2701, WBS DC1-30200)

Listed for temperature, total ammonia, pH, and Removal of Riparian Habitat. There are two stations with data from 1990. Station DCR701.001501 indicated full support of the fishery use for all parameters (0/5). Station DCR701.001507 indicated Full Support, Impacts Observed for all three parameters (1/1). This station was also the reference site for a 1990 biological survey, which indicates full support for the fishery use.

ACTION: The chemical and biological data supports upgrading this reach to full support. However the reach will continue to be listed as Partially Supporting with unknown as the cause on non-support.

SOUTHWEST CLOSED BASIN

201. Tularosa Creek from the town of Tularosa to the headwaters (WQS 2801, WBS CCB3-10000)

Listed as a LWWF (priority 7 reach) and for metals (Al, Hg). The Bureau received three letters from concerned groups in the area pertaining to this particular waterbody. Questions about the designated use prompted the Bureau to look into the applicability of the LWWF designation. A fish hatchery located on the river in Mescalero and operated by the U.S. Fish and Wildlife Service as well as other information contained in the letters led to a change in the designated use from a LWWF to a CWF. There is one sampling station (08481500) on this reach. All data are from 1989, 1990, 1991, 1992 and 1993 surveys. For aluminum (Al), 2/17 samples taken from 1989 to 1992 exceeded the criteria while 0/3 sample in the 1993 survey exceeded the criteria. For mercury (Hg), 1/10 samples taken from 1989 to 1991 exceeded the criteria. The designated use is fully supported for aluminum (Al) while it is fully supported, impacts observed for mercury (Hg).

ACTION: This reach will be restored to the 303(d) list as a result of our decision to list all reaches where Riparian Habitat was moved as a Cause of non-support.

202. Gallinas Creek from the mouth on the Mimbres River to the headwaters (WQS 2803, WBS SWC2-10300)

Previously listed for temperature, fecal coliform, and total ammonia. There is only one sample station on this reach. All data are from a 1990 and 1995 surveys. For temperature, 1/2 of the samples taken in the 1990 survey exceeded the criteria, while 4/6 of the samples taken in the 1995 survey exceeded the criteria. For fecal coliform, 0/1 of the samples taken in the 1995 survey exceeded the criteria. For total ammonia, 0/6 of the samples taken in the 1995 survey exceeded the criteria.

ACTION: Total ammonia will be removed as a cause of non-support for this reach. Fecal coliform will be dropped as a cause of non-support on the 303(d) list and will be added to the 305(b) list as Full Support, Impacts Observed. The reach will continue to be listed on the 1998 303(d) report as Partially Supported for temperature and stream bottom deposits.

203. Mimbres River, perennial portions below Sheppard Canyon (WQS 2803, WBS SWC2-10000)

Previously listed for metals (Al), temperature, fecal coliform and stream bottom deposits. There are three sampling stations on this reach. All data are from 1990 and 1995 surveys.

For metals, at station SWC803.000105, 0/1, of the samples exceeded the criteria in the 1990 survey, while 1/2 of the samples taken in the 1995 survey exceeded the criteria. At station SWC803.002501, 0/7 of the samples taken in 1990 exceeded the criteria, while 0/3 of the samples taken in 1995 exceeded the chronic screening level indicating Full Support, Impacts Observed. At station SWC803.002530, 0/1 of the samples taken in 1990 exceeded the criteria, while 0/3 of the samples taken in 1995 exceeded criteria. For temperature, at station SWC803.000105, 1/1 of the samples exceeded the criteria in the 1990 survey, while 2/3 of the samples taken in 1995 exceeded criteria. At station SWC803.002501, 3/4 of the samples taken in 1990 exceeded the criteria, while 5/9 of the samples taken in 1995 exceeded criteria. At station SWC803.002530, 3/5 of the samples taken in 1990 exceeded the criteria, while 1/9 of the samples taken in 1995 exceeded criteria. For fecal coliform, at station SWC803.000105, 0/0 of the samples exceeded the criteria in the 1990 survey, while 0/1 (0%) of the samples taken in 1995 exceeded criteria. At station SWC803.002501, 1/1 of the samples taken in 1990 exceeded the criteria, while 0/2 of the samples taken in 1995 exceeded criteria. At station SWC803.002530, 2/2 of the samples taken in 1990 exceeded the criteria, while 0/2 of the samples taken in 1995 exceeded criteria. There are three 1995 biological stations on this reach. One below San Lorenzo was 75%, another at Mimbres was 68% and another above the Gallinas River confluence was FS 81%. It is believed that these data may be more influenced by low flow conditions than water quality.

ACTION: Fecal coliform and aluminum will be removed as causes of non-support for this reach, but will be added to the 305(b) list as Full Support, Impacts Observed for these parameters. The reach will continue to be included in the 303(d) list as Not Supported for temperature and stream bottom deposits.

204. Three Rivers, perennial portions from U.S. Highway 54 to White Mountain Wilderness Boundary (WBS CC3-20000, WQS 2802)

Previously listed for temperature, conductivity, salinity and total phosphorus. Temperature data from 1987 at station CCB802.002025 shows a 4/5 exceedence ratio and a 5/5 exceedence ratio at station CCB802.002015. Conductivity data from 1987 at station CCB802.002025 shows a 5/5 exceedence ratio and a 4/4 exceedence ratio at station CCB802.002015.

ACTION: Salinity (no standard) and total phosphorus will be removed as a cause of non-support for this reach. Temperature and conductivity will be listed as causes of non-support at stations CCB802.002025 and CCB802.002015.

205. Mimbres River from Sheppard Canyon to Cooney Campground (WQS 2804, WBS SWC2-20000)

Listed for metals (Al), dissolved oxygen and stream bottom deposits. There are three sampling stations on this reach. All data are from 1986, 1990 and 1995 surveys. For aluminum, at station 08477110, 0/2 of the samples exceeded the criteria in the 1986 survey.

At station SWC804.003035, 0/1, of the samples exceeded the criteria in the 1990 survey, while 0/4 of the samples taken in the 1995 survey exceeded the criteria. At station SWC804.006048, 0/1 of the samples taken in 1990 exceeded the criteria, while 1/4 of the samples taken in 1995 exceeded criteria. For dissolved oxygen, at station 08477110, 0/4 of the samples exceeded the criteria in the 1986 survey. At station SWC804.003035, 0/5, of the samples exceeded the criteria in the 1990 survey, while 0/9 of the samples taken in the 1995 survey exceeded the criteria. At station SWC804.006048, 0/3 of the samples taken in 1990 exceeded the criteria, while 2/5 of the samples taken in 1995 exceeded criteria. For temperature (not previously listed), at station 08477110, 1/5 of the samples exceeded the criteria in the 1986 survey. At station SWC804.003035, 4/5, of the samples exceeded the criteria in the 1990 survey, while 4/9 of the samples taken in the 1995 survey exceeded the criteria. At station SWC804.006048, 0/3 of the samples taken in 1990 exceeded the criteria, while 0/9 of the samples taken in 1995 exceeded criteria. There is one 1995 biological assessment on this reach. The station at Cooney Campground was 56% of the reference site.

ACTION: Aluminum will be removed as a cause of non-support for this reach and will be placed on the 305(b) list as Full Support, Impacts Observed. Dissolved oxygen will be kept as a cause of non-support for station 6048. Temperature will be added as a cause of non-support at station 3035. Stream bottom deposits will be retained as a cause of non-support.

206. Hot Springs Creek from the mouth on the Mimbres River to the headwaters (WQS 2803)

Listed for reduction of riparian vegetation and streambank destabilization. There is no applicable data to support any listing on this reach. This is also an intermittent stream that “may” flow only during rain events.

ACTION: This reach will be retained on the 303(d) list with a cause of unknown.

207. Cold Springs Creek from the mouth on Hot Springs Creek to the headwaters (WQS 2803, WBS SWC2-10210)

Listed for undetermined metals. Water samples were collected upstream of Cold Springs Creek and downstream of a sediment retention basin in November 1992 and February 1993 and analyzed for metals. Concentrations of dissolved copper and zinc exceeded acute criteria which indicates that the acute criteria would be exceeded in the receiving stream.

ACTION: This reach is included in the 1998 303(d) list as not supported for copper and zinc.

208. Hanover Creek from the headwaters to Highway 152 Bridge (WQS 2803)

After consultation with staff from the NMED Silver City Office, Nonpoint Source Pollution Section of the SWQB, comments from the New Mexico Mining Association and Phelps Dodge Mining Company, it has been determined that this reach of Hanover Creek (Hanover Creek from the headwaters to Highway 152 Bridge) is ephemeral and should be removed from the 1998-2000 §303(d) List as an impaired waterbody.

ACTION: It has been dropped from the 1998 303 (d) list.

REACHES REMOVED FROM THE LIST DUE TO THE FEDERAL CHANGE IN THE DEFINITION OF A THREATENED WATERBODY

Previously the definition of the Threatened Category was not well defined. Many states including New Mexico used it as a category for waters for which data indicated a possible problem but for which there was insufficient information to make a definitive call on use support. In the new TMDL guidance from EPA this category was given a more restrictive definition.

This new definition says that "States should include a waterbody on the 1998 section 303(d) lists if the waterbody **presently meets** an applicable water quality standard, but is **expected to exceed that standard** before the next list submission deadline". Further, the guidance states that the determination of **"expected to exceed that standard"** is based on actual monitoring data for which a declining trend in water quality can be established. We have no waters which met this test so no "Threatened" listings were made. We did however create our own category of **"Full Support, Impacts Observed"** to deal with waterbodies which have shown some exceedences of standards but for which there is insufficient data to support listing these waterbodies on the 303(d) list. These waters are included on the 1998 305(b) list.

The following 29 "threatened" waterbodies were removed from this biennial listing:

209. La Jara Creek, tributary to the Rio Puerco, perennial portions (Rio Grande, 2107)

210. Rito de los Pinos, tributary to the Rio Puerco, perennial portions (Rio Grande 2107)

211. Costilla Creek from irrigation diversion above Costilla to Comanche Creek (Rio Grande 2120)

212. Comanche Creek from Little Costilla Creek to headwaters (Rio Grande 2120)

213. Columbine Creek at its mouth on the Red River (Rio Grande 2119)

214. Mallete Creek from the mouth on Red River to headwaters (Rio Grande 2120)

215. Red River from Placer Creek to the confluence of East and West Forks of Red River (Rio Grande 2119)

216. West Fork of the Red River from the confluence with the East Fork to headwaters (Rio Grande 2120)

217. Middle Fork of the Red River from the mouth on the West Fork to the headwaters (Rio Grande 2120)

218. Rio Santa Barbara from the Village of Rodarte to the confluence of the East and West Forks (Rio Grande 2120)

219. Placer Creek from the mouth on Rio Vallecitos to Hopewell Lake (Rio Grande 2112)

220. Placer Creek from the inflow to Hopewell Lake to headwaters (Rio Grande 2112)

221. Pecos River from Jacks Creek to the headwaters (Pecos River 2214)

222. Indian Creek from the mouth on the Pecos River to the headwaters (Pecos River 2214)

223. Macho Canyon Creek from the mouth on the Pecos River to the headwaters (Pecos River 2214)

224. Dalton Canyon Creek from the mouth on the Pecos river to the headwaters (Pecos River 2214)

225. Rito los Esteros from the mouth on the Rio Mora to the headwaters (Pecos River 2214)

226. Rio Valdez from the mouth on the Rio Mora to the headwaters (Pecos River 2214)

227. Winsor Creek from the mouth on the Pecos River to the headwaters (Pecos River 2214)

228. Panchuela Creek near its mouth on the Pecos River (Pecos River 2214)

229. Jacks Creek from the mouth on the Pecos River to the headwaters (Pecos River 2214)

230. Rito del Padre from the mouth on the Pecos River to the headwaters (Pecos River 2214)

231. Rito Sebodilloses from the mouth on the Rito del Padre to the headwaters (Pecos River 2214)

232. Rito Azul from the mouth on the Rito del Padre to the headwaters (Pecos River 2214)

233. Rito de los Chimayoses from the mouth on the Rito Azul to the headwaters (Pecos River 2214)

234. Rito Maestas from the mouth on the Rito del Padre to the headwaters (Pecos River 2214)

235. Jarosa Canyon Creek from the mouth on the Pecos River to the headwaters (Pecos

River 2214)

236. Rayado Creek from the Miami Lake diversion to the headwaters (Canadian River 2305)

237. Sacramento River, perennial portions (Closed Basins 2801)

238. Delaware River from the mouth on the Pecos River to the New Mexico/Texas border (Pecos River 2202)